DOCUMENT RESUME

ED 419 333 EC 306 421

AUTHOR	Ryan, Susan, Ed.; Kurka, Diana, Ed.
TITLE	Alaska Inclusion Training Modules: Building Inclusive Classrooms and Schools. Modules 1-3. Second Edition.
INSTITUTION	Alaska State Dept. of Education, Juneau.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	1997-05-00
NOTE	583p.; Contains frequent pages that will not reproduce well. Editor/author Susan Ryan occasionally appears as "Susan Ryan-Vincent."
CONTRACT	H029K20200
AVAILABLE FROM	Alaska Department of Education, Special Education Programs, 800 W. 10th Street, Suite 200, Juneau, AK 99801-1894.
PUB TYPE	Guides - Classroom - Teacher (052)
EDRS PRICE	MF03/PC24 Plus Postage.
DESCRIPTORS	Classroom Techniques; *Cooperative Learning; *Curriculum Development; *Disabilities; Elementary Secondary Education; *Inclusive Schools; *Inservice Teacher Education; Mainstreaming; Regular and Special Education Relationship; Teaching Methods
IDENTIFIERS	Alaska

ABSTRACT

This document presents three inservice training modules which focus on the inclusion of students with disabilities in regular education settings in Alaska schools. Module 1, "Setting our Sights on Inclusion," by Diana Kurka, is a three-hour inservice program which provides an introduction to inclusion via sections on: legal and legislative aspects of inclusion; challenges facing teachers, districts, and teams; benefits of inclusion; and issues related to building level change. Module 2, "Curriculum Modification & Instructional Adapation in Inclusive Schools," by Susan Ryan and Marie Doyle, addresses the nature of curriculum, the rationale for curriculum modification, principles underlying curriculum modification, and the specific curriculum modification approaches of Circle of Friends, making of action plans (MAPS), ecological assessment strategies, activity based instruction, and other curriculum modification approaches. Module 3, "Cooperative Learning and Inclusion," by Jo Anne Putnam, is on cooperative learning as one strategy that can increase access to the curriculum for students with disabilities. Sections cover what cooperative learning is, a research review, ways to conduct cooperative learning activities, positive interdependence, lesson planning and cooperative structures, teaching cooperative skills, cooperative discipline, adaptations for students with disabilities, cooperative learning and cultural diversity, and cooperative student support teams. Generally, each section within a module presents the section's purpose, desired learner outcomes, the section content, suggested readings, suggested activity or activities, and an assignment. (Individual modules contain references.) (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 419 333

ALASKA INCLUSION TRAINING MODULES:
Building Inclusive Classrooms and Schools

Module Series Edited by
Susan Ryan, Ph.D.
Diana Kurka

First Edition: May, 1995
Second Edition: May, 1997

For further information contact:

Special Education Programs
Alaska Department of Education
800 W. 10th Street, Suite 200
Juneau, AK 99801-1894

Alaska
Department of
Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

EC 306421

BEST COPY AVAILABLE

Table of Contents

Module 1: Setting Our Sights on Inclusion

Table of Contents i
Overview vii
3 Hour Presentation Outline 1.1
2 Hour Presentation Outline 1.3
Goals and Objectives 1.5
1: Look Who's Coming to Teach 1.7
2: Look Who's Coming to School 1.19
3: Look Who's Talking Now 1.22
4: A Look at Why We're Here 1.24
5: A Look at Inclusion: Good for One, Good for All? 1.26
6: Looking at the Legal Aspects of Inclusion 1.32
7: Looking Into It: What Does Inclusion "Look" Like in Schools? 1.41
8: A Not-So-Last Look at Inclusion 1.48
Materials Included in Presenter's Packet 1.49
Descriptive List of Transparencies & Other Materials 1.50
Materials Included in Participants' Packets 1.51
Participant Packet 1.53

Module 2: Curriculum Modification & Instructional Adaptation in Inclusive Schools

Overview 2.1
1: Introduction 2.7
2: What is Curriculum? 2.17
3: Why Should We Modify Curriculum? 2.29
4: Principles Underlying Curriculum Modification 2.41
Readings 2.51
5: Curriculum Modification Approach: Circle of Friends 2.73
6: Curriculum Modification Approach: MAPS 2.81
Readings 2.89
7: Curriculum Modification Approach:
  Ecological Assessment Strategies 2.135
Readings 2.147

Table of Contents

Module 2: Curriculum Modification & Instructional Adaptation in Inclusive Schools (cont.)

8: Curriculum Modification:
Activity Based Instruction and the Activity Skills Matrix 2.193
Readings 2.203
9: Specific Curriculum Modifications Approaches 2.221
Readings 2.233
10: Putting It All Together 2.295
References 2.311
Appendix: Modifying Curriculum Via Activity Analysis 2.317

Module 3: Cooperative Learning and Inclusion

Overview: Module Series Components 3.1
Overview: Cooperative Learning Module 3.5
1: Cooperative Learning & Inclusion: An Introduction 3.11
2: Research Review: What Cooperative Learning has to Offer
Students with Challenging Needs 3.19
Readings 3.25
3: How to Conduct Cooperative Learning Activities 3.67
4: Positive Interdependence: The Essence of
Cooperative Learning 3.71
5: Lesson Planning and Cooperative Structures 3.77
6: Teaching Cooperative Skills 3.81
7: Cooperative Discipline 3.85
8: Adaptations for Students with Disabilities 3.91
Readings 3.99
9: Cooperative Learning and Cultural Diversity 3.103
Readings 3.107
10: Cooperative Student Support Teams 3.113
References 3.117
Library Resources on Inclusive Education 3.121

NOTE: Several articles included in the Readings sections of the first edition of this module were pulled from the second (May 1997) edition because permissions for additional use could not be obtained. No page numbers have been changed. Gaps between numbered pages are the result of the elimination of these articles.

ALASKA INCLUSION TRAINING MODULES:
Building Inclusive Classrooms and Schools

Module 1: Setting Our Sights on Inclusion

Diana Kurka

Module Series Edited by
Susan Ryan, Ph.D.
Diana Kurka

First Edition: May, 1995
Second Edition: May, 1997

This module is part of the Regular Education Full Inclusion Project training module series funded in part by Grant # H029K20200 awarded by the United States Department of Education, Office of Special Education Programs to the University of Alaska Anchorage, School of Education and the University Affiliated Programs; and funded via the Alaska Comprehensive System of Personnel Development, Alaska Department of Education. Module 1 is part of the inservice training series developed for the Anchorage School District. The content does not necessarily represent the position of the United States or the Alaska Department of Education or the Anchorage School District, and no official endorsement should be inferred.

We extend our appreciation to the site participants involved in the Regular Education Full Inclusion Project during the 1992-1995 grant years, and to the multiple disabilities specialists at Special Education Service Agency for their assistance and support with various aspects of the projects.

Prepared for Alaska Comprehensive System of Personnel Development for 1995 dissemination only. Permissions granted for limited 1997 distribution.

Building Inclusive Classrooms and Schools

Module 1

Setting Our Sights On Inclusion

An Introductory Inservice Module

Module Developed by the Anchorage School District in collaboration with the Special Education Service Agency

Diana Kurka
Anchorage School District

Building Inclusive Classrooms and Schools

Training Modules Overview

This module series was compiled to guide school district teams in Alaska in learning about the ways in which they can build inclusive classrooms and schools. Supporting teachers, parents, principals, teaching assistants and other educational team members efforts in developing caring classrooms and schools is important for ensuring that all students are accepted in their home schools and communities. Furthermore, efforts to develop and maintain educational programs that result in meaningful outcomes for students who experience disabilities is necessary to ensure that the benefits of inclusion occur.

Some aspects of the series are focused on creating attitudes, environments and a school culture that foster a sense of belonging, caring, and community for all students (e.g., Module 1). Other aspects are more specifically focused to develop creative cooperative lesson plans (Module 2) and creative adaptations for supporting students who experience disabilities in regular education classrooms (Module 3).

The desired outcomes for the series are that participants will:

(1) increase their general understanding and skills in the area of inclusive education;

(2) implement effective educational services for students who experience disabilities in their relevant settings;

(3) be aware of additional resources available.

Content

Module 1: Setting Our Sights on Inclusion: An Introductory Inservice

Focus: This three hour inservice training module contains ready to use sections on: legal and legislative aspects of inclusion, challenges facing teachers, districts, and teams, benefits of inclusion and other introductory issues related to building level change issues.

Module 2: Curriculum Modification and Instructional Adaptations for Inclusive Classrooms and Schools

Focus: Specifics related to supporting students who experience disabilities in regular education classrooms. Understanding how curriculum can be expanded and enhanced to support the learning of students who experience disabilities.

Module 3: Cooperative Learning and Inclusion

Focus: Understanding cooperative learning as one strategy that can increase access to curriculum for students who experience disabilities.

Participants

The sections of this learning series have been field tested in districts across Alaska. Sections have been used as both inservice workshops and year long district courses. The learning series is designed so that district teams may choose the sections and activities that are most relevant to their particular inservice and staff development needs.

The most likely participants are:

*teachers
*parents
*teaching assistants
*related service personnel
*principals
*others involved in the daily practice of schooling

There are sections in the modules in which the learning and relationships will be enhanced by the participation of:

*parents
*village elders
*community volunteers
*bus drivers
*custodians
*school board members
*superintendents

We suggest that teams at a site come together to identify the specific sections of these modules that will meet their individual needs. Working together, important changes can occur for all students.

Training Length and Structure

The modules may be used as year long courses or as individual inservice day workshops. We encourage facilitators to work with individual site participants to choose the sections and the structure of training sessions. Facilitators may choose to modify handouts, activities or assignments to ensure that the material relates to participants' respective work circumstances. We encourage facilitators to become familiar with the materials, their participants, coordinate with other state and national individuals with knowledge or expertise in the topic areas, and then synthesize the materials to ensure appropriateness for participants. The developers of these materials offer these materials as resources, examples, and do not provide them as a recipe or the only training materials to use.

Notes to Facilitators

1. Facilitators may benefit from experience with conflict resolution, understanding of group dynamics, and creative problem solving. The following are references that we suggest:

Conflict Resolution:

Fisher, R., & Ury, W. (1988). Getting to yes: Negotiating agreement without giving in. New York: Penguin Group.

Weeks, D. (1992). The eight essential steps to conflict resolution: Preserving relationships at work, at home, and in the community. New York: Jermeny P. Tarcher/Putnam Books

Group Dynamics:

Dyer, W. (1987). Team Building: Issues and Alternatives. Reading, Mass.: Addision-Wesley Publishing Company

Williams, W., & Fox, T. (1991). Implementing best practices for all students in their local schools. Burlington, VT: Center For Developmental Disabilities, University of Vermont. (802) 656-4031

Creative Problem Solving:

Giangreco, M., Cloninger, C., Dennis, R., & Edelman, S. (1994). Problem solving methods to facilitate inclusive education. In J. Thousand, R. Villa, & Nevin, A. (Eds.), Creativity and collaborative learning: A practical guide to empowering students and teachers. Baltimore: Paul Brookes Publishing Company. 301-337-9580

Osborn, A. (1953). Applied imaginaton: Principles and procedure of creative thinking. New York: Charles Scribner's Sons.

Parnes, S. J. (1992). Source book for creative problem-solving: A fifty year digest of proven innovation processes. Buffalo, NY: Creative Education Foundation Press.

2. Be familiar with the materials prior to conducting an inservice or workshop.

3. Present with another colleague. If you are a regular educator, you may want the support of a co-presenter such as a special educator. If you are a principal you may want to co-present with a parent or village elder.

4. Remember: It is not always wise to "set yourself up" as an expert in inclusive education. We suggest that you capitalize on the expertise of the participants in your school, village or region. Recognizing that all individuals attending your inservice or workshop bring their own unique gifts and talents will ensure that you reflect the values of inclusive education.

5. Explain your role to the audience/participants. What do you hope to learn? What are your values? How do you see their role as participants?

6. Consider the climate that you wish to set. If this is a year long course or series of workshops, you may wish to enlist the input of your participants in defining the climate. In general, we suggest that you create a climate that is safe, free from judgments, affirming, and allows participants to be innovative and risk takers.

7. Remember that the most important outcome of training should be how the training effects a change in the lives of students. To that end, encourage participants to take responsibility for their own learning, for thinking broadly about a topic, and for linking the knowledge, activities, assignments directly to their work as educators.

8. Schooling is becoming more and more an interactive endeavor. We recognize that not one person can meet the needs of all students. The module series weaves the concepts of collaborative teaming throughout the activities, readings, and assignments. In order to model effective teaming strategies you may wish to identify group roles during interactive groups such as the recorder, timekeeper, facilitator, reporter, encourager, and jargon buster.

9. Consider how you will deal with an individual, or individuals who may be struggling or confrontational to such a degree that the rest of the group are "at risk". Group facilitators training is a helpful resource for facilitators of these modules.

Group Facilitator Training:

10. We suggest that you take active steps to continue your own lifelong learning pursuits. In the area of heterogeneous schooling the following ideas have been used by other teacher trainers, inservice providers, or group facilitators to ensure that they are effective inclusion facilitators:

a) Participation/Attendance at national conferences such as The Association for Persons with Severe Disabilities; the Association for Supervision and Curriculum Development; American Education and Research Association; Phi Delta Kappa etc.

b) Study under national experts. Summer university sessions are easy and effective ways to upgrade your skills. The following universities are looked on as leaders in the field of inclusive education:

Wayne Fox, Wes Williams, Michael Giangreco and the Interdisciplinary Team at the University of Vermont; Dianne Ferguson and the Schools Projects at the University of Oregon; Marsha Forest and Jack Pearpoint at McGill University; Lori Goetz at San Franscisco State: Jennifer York at the University of Minnesota; Charles Peck at University of Washington at Vancouver; Chris Salisbury at Allegheny Singer Research Institute; and Luanna Meyers at the Integrated Regular and Special Education Teacher Preparation Programs and the Center on Human Policy at the Syracuse University in New York.

c) Join local and national organizations that support creative innovative approaches to education for all students.

d) Develop metaphors that capture and reflect concepts that you are trying to share with participants.

e) And finally, as with many endeavors in life, know that you are both a teacher and a student. If you reflect on your own practices, may changes and synthesize new information into what you do on a daily basis you will maximize your own learning.

Notes to Participating Districts

1. **Open Your Minds.** Using the philosophy developed by yoga masters we suggest you "leave your ego at the door" and "open your minds". As Jennifer York suggests, "by choosing to remain open, you can make the informed and thoughtful decisions about how the information and experiences in this series relates to what you believe, and think, and do".

2. **Put the Kids First.** In a keynote address given to the Alaska Chapter of Phi Delta Kappa, Alaska Department of Education Commissioner Shirley Holloway encouraged educators to always reference the decisions they make to children and students. In other words, in what ways do you ensure via your actions that children are at the heart of what you do every day?

3. **Decide that you will Learn Something.** Pouring information into someone's head is not an effective teaching or learning strategy. You can decide to take something away from this training. It might be something that you can use immediately in your work as a teacher; or it may be a shift in the ways in which you had considered inclusion.

4. **Join In, Contribute, Believe that You Have Something To Offer.** In a collaborative manner share your thoughts, philosophy, skills, experiences and the manner in which you synthesize information and experiences. Others may benefit from your contributions.

5. **Respect Individual Differences.** Know that others are not always thinking, learning, or synthesizing the exact way you are.

6. **Support the Facilitator.** It is not always easy to facilitate a group of diverse educators. Your assistance may result in a richer and deeper experience for all participants. In fact, you may wish to gather other participants' reaction and feedback from the training materials and prepare other training materials with the facilitator.

7. **Inch by Inch, Row by Row—Watch It Grow.** Extend the inservice session by organizing in school discussion sessions. You may want to set up a monthly meeting, rotating locations, to meet and discuss hot educational topics or relevant school/district issues.

8. **Have Fun.** If you are not having fun, you can be sure the participants aren't. In what ways can you reignite the flame that made you choose teaching as a profession? In what ways do you make an impact in the lives of the children and families with whom you work? With whom do you share the joy of teaching? In what small ways can you change the way you think about teaching?

Final thoughts:

These modules have been shared with over one hundred educators in Alaska. The goal of these training materials was to build the capacity of educators to support the needs of students of diverse abilities in regular education classrooms and schools across Alaska. The values and assumptions underlying these modules are: all children belong; all children can learn; parents and families are an essential partner in schooling; and people in schools must come together to meet the needs of all students. We welcome your feedback, questions, or ideas. Please call us:

Susan Ryan-Vincek, University of Alaska Anchorage, School of Education, 3211 Providence Dr., Anchorage, AK 99508 (907-786-4854);
Diana Kurka, Anchorage School District, King Career Center, (907-257-8292)

Instruction/Guidelines for Facilitators

1. These modules are developed so that you may pick and choose the sections that will best meet the needs of your participating districts and educational teams. Look through the materials, determining the content, activities, handouts, and overheads that you will need.

2. Before the training session. Consider the following:

*how much time will the session take?

*what materials do you need? Magic markers, transparencies, flip charts, xeroxed articles, handouts, videotapes,

*purchase, borrow, check out materials from SESA, or otherwise obtain the supplemental resource materials that you will need as a district/state trainer;

3. During the session:

*Consider identifying a support person, someone you can count on to fix the overhead projector when it breaks, xerox an additional overhead that the participants request, or just simply lend you moral support;

*Focus on the verbal and nonverbal signals that you are getting from your audience, adjust your presentation to the feedback that you get;

*Do perception checks. During the workshop, stop and take stock. See where people are. Find out if participants want to spend more time on a particular section or whether they are ready to move on;

*Check for Understanding. In addition to checking perceptions you may also wish to stop and determine how participants are receiving the content;

*Enjoy this opportunity to dialogue and learn with your colleagues!

4. After the session:

*Relax and regroup.

*Celebrate the successes. What were they? Review the feedback that you got from the group. What went well? Share your successes with other state or district facilitators. We can learn from each other.

*What would you do differently? Review the feedback and analyze the specifics of what you wish to do differently. Did you try to cram in too much? Were you prepared? Did you know the content? Did you support the participants in their struggles? Did you co-present in a collaborative, nurturing, nonjudgemental manner? Were the materials you prepared effective, do you need to change anything?

*What would you consider to be your "next step"? What would you like to learn next? Relaxation techniques? Group Facilitation Strategies? Conflict Resolution Skills? Creative Problem Solving Skills? Specifics related to inclusive education: designing cooperative learning lesson plans, infusing individual educational plans (e.g., goals) into the regular education curriculum, multiple intelligence theory and practices, planning systems such as COACH, collaborative teaming strategies? Set your goals. In what ways can you improve your skills, knowledge, analysis, synthesis and reflective abilities?

SETTING OUR SIGHTS ON INCLUSION
Continuing the Vision
(3 hour Presentation)

1: **Look Who's Coming to Teach**

A. Where did we personally participate on the "educational" timeline?

B. What did schools and classrooms look like at different points on this timeline?

2: **Look Who's Coming to School**

A. Who is the "typical" student?

B. What challenges are facing educators in our community?

C Have our schools changed to reflect community changes?

3: **Look Who's Talking Now!** an audio presentation

4: **A Look at Why We're Here**

A. What educational outcomes are we looking for in our district?

B. What is the definition of inclusion and how does it relate to our educational outcomes?

---------------------**Break**-------------------------------

5: **Looking at Inclusion: Good for one, Good for all?**

A. What do the "experts" say are the benefits of inclusion for all students? A closer look at recent research regarding inclusion.

B. What benefits can we identify for ourselves and our students?

6: Looking at the Legal Aspects of Inclusion

A. Are we the only ones moving toward inclusion?

B. Is inclusion "legal"? A closer look at key legislation regarding inclusion.

7: Looking into it: What does Inclusion "look' like in school?

A. Is a picture worth a thousand words? Viewing a videotape showing an inclusionary setting.

B. Which educational approaches are more inclusionary? A closer look at traditional approaches vs. inclusion-oriented approaches.

8: A Not-so-Last Look at Inclusion

A. What have we looked at in regard to inclusion?

B. What will we see in the future?

SETTING OUR SIGHTS ON INCLUSION
Continuing the Vision
(2 Hour Presentation)

3: **Look Who's Talking Now!** audio tape presentation

4: **A Look at Why We're Here**

A. What educational outcomes are we looking for in our district?

B. What is the definition of inclusion and how does it relate to our educational outcomes?

5: **Looking at Inclusion: Good for one, Good for all?**

A. What do the "experts" say are the benefits of inclusion for all students? A closer look at recent research regarding inclusion.

B. What benefits can we identify for our selves and our students?

6: **Looking at the Legal Aspects of Inclusion**

A. Are we the only ones moving toward inclusion?

B. Is inclusion "legal"? A closer look at key legislation regarding inclusion.

7: **Looking into it: What does Inclusion "look" like in schools?**

Note: This is an optional extension section for the 2 hour presentation plan. You may choose to add the entire section for an additional 40 minutes or you may choose to use A.(videotape 25 minutes) or B. (activity 15 minutes).

A. Is a picture worth a thousand words? Viewing a videotape showing an inclusionary setting.

B. Which educational practices are more inclusionary? A closer look at traditional approaches vs. inclusion-oriented approaches.

C What are we already doing in our schools and our own classrooms that would promote inclusion of all students?

8: A not-so last look at Inclusion

A. What have we looked at in regard to inclusion?

B. What will we see in the future?

SETTING OUR SIGHTS ON INCLUSION:
Continuing the Vision

GOAL:

To create an awareness and understanding of the philosophy of Inclusion.

OBJECTIVES:

Participants will gain an understanding of inclusion and its relationship to educational outcomes.

Participants will examine their attitudes and values to develop a more comprehensive view of inclusion.

Participants will be aware of legislation affecting inclusion.

Participants will identify educational approaches that enhance inclusion of diverse populations.

- Participants will understand the complexity of systems change and the time required for change to take place.

- Participants will examine the need for a partnership between administration, staff and families.

1: Look Who's Coming To Teach

Presenter's Notes:

Prior to this activity, label 5 large pieces of butcher paper or large tablet paper with the following titles: 1950's, 1960's, 1970's, 1980's, 1990's. Have ready stick-on name badges with two distinctly different colored sticker dots paper clipped on side. Participants will put names on badges and use the dots during this activity. Post the five large papers in sequence at front of room; these need to remain up during the entire module.

Introduction:

Ask participants to use one colored dot to indicate what decade they graduated from high school, and the other to indicate college graduation. Participants stick dots on appropriate sheets.

Discussion:

When all the dots are up, lead a discussion around the following questions:

1. When did most of us graduate from high school? from college? Discuss the spread of responses for the group.
2. (If desired:) What songs/fashions/cars/etc. were popular during this decade?

Put up transparencies 1a, 1b, 1c, 1d, 1e (there is one for each decade) Use these transparencies to stimulate discussion of the next two questions.

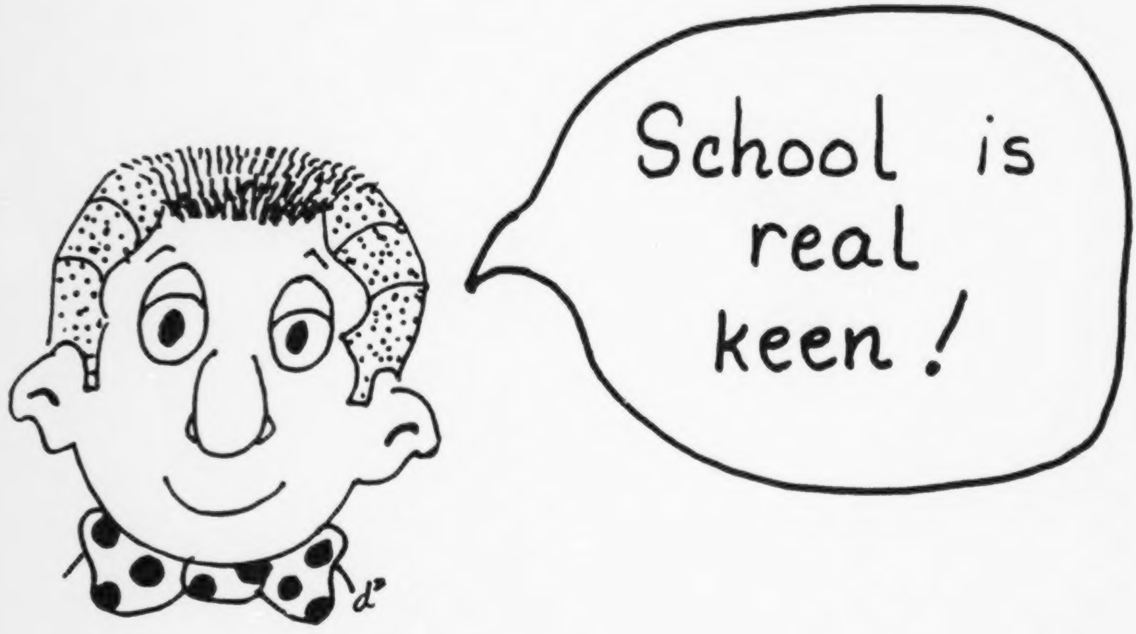
#1 p2

3. (For each decade) What was school like during the 19--'s? What techniques or methods were teachers using?
4. Where were special education students during this decade? Do you remember having classmates with disabilities present at your school? What educational services did they receive?
5. Relate the feelings and reactions of the participants after the implementation of 94-142 in the 70's (Education of All Handicapped Children Act) to those of inclusion today.

Closure:

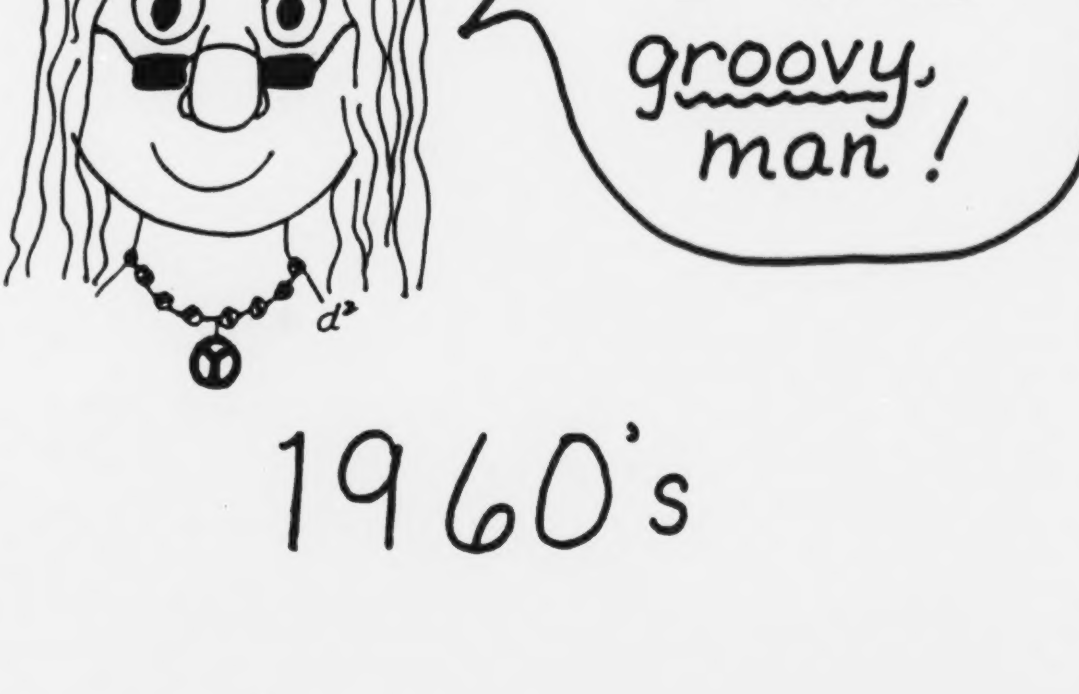
Summarize discussion by pointing out that education has changed as has our society. The main point here is to highlight that special education is changing as is regular education over the years and that inclusion is part of an ongoing change process in all education. The reality is that educational practices have not kept pace with the changes in society and how learners learn.

Transparency 1a


School is real keen!

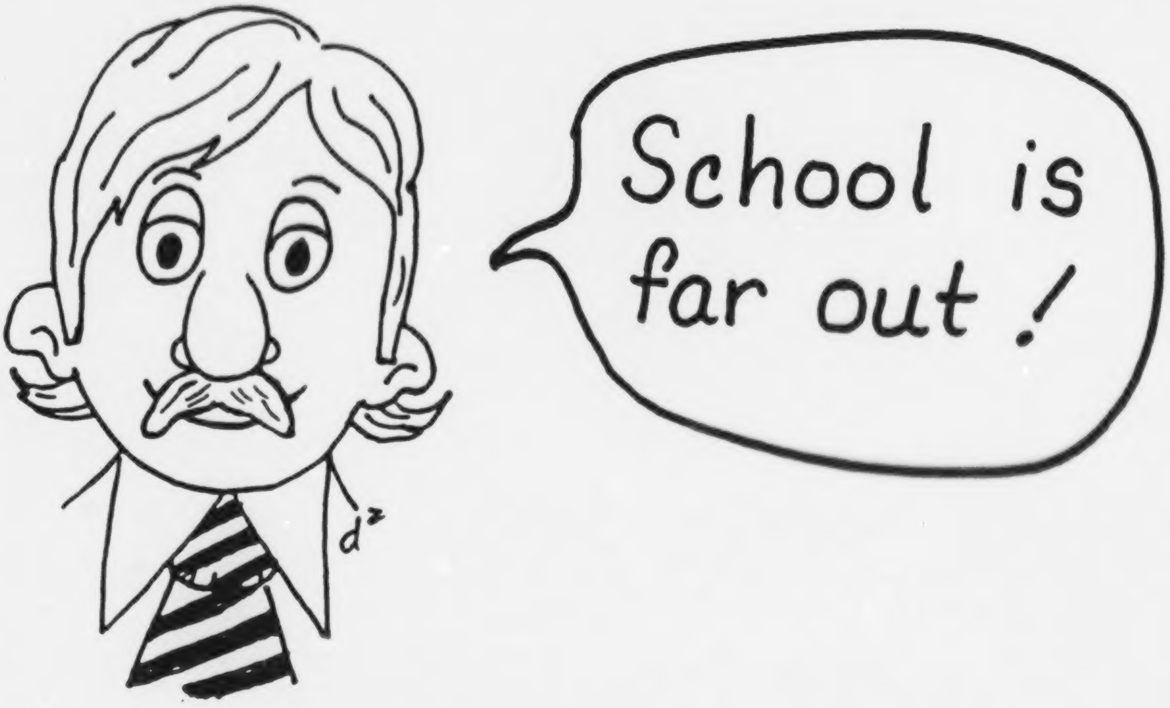
1950's

Transparency 16


School is like groovy, man!
d²

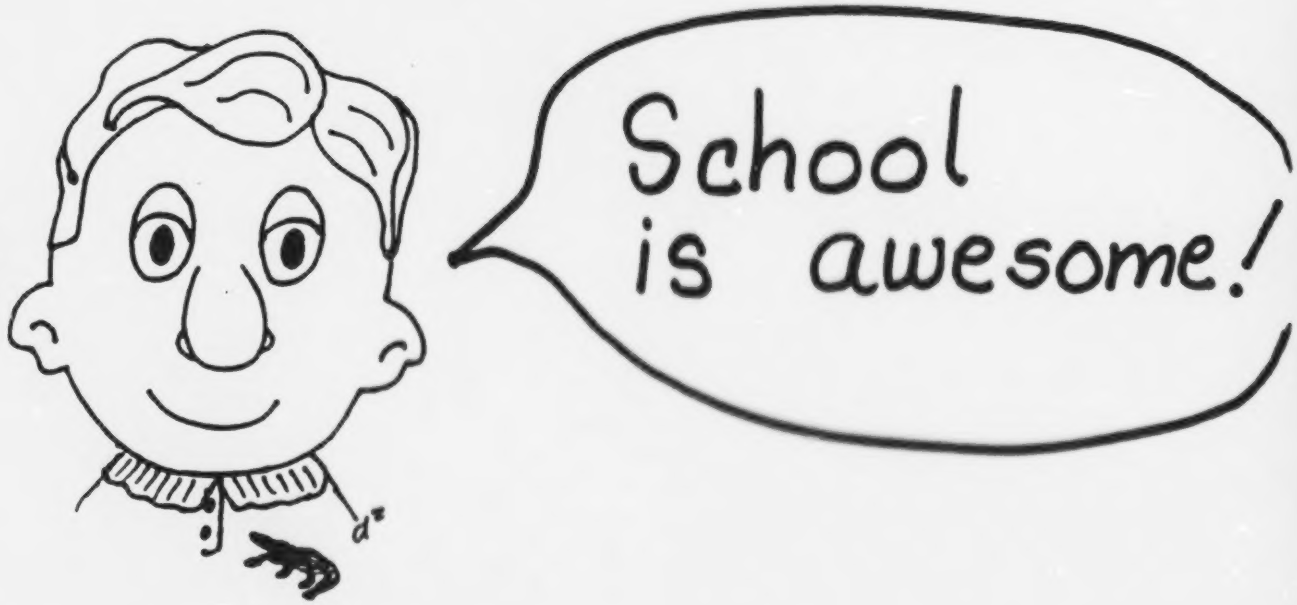
1960's

Transparency 1c


School is far out!

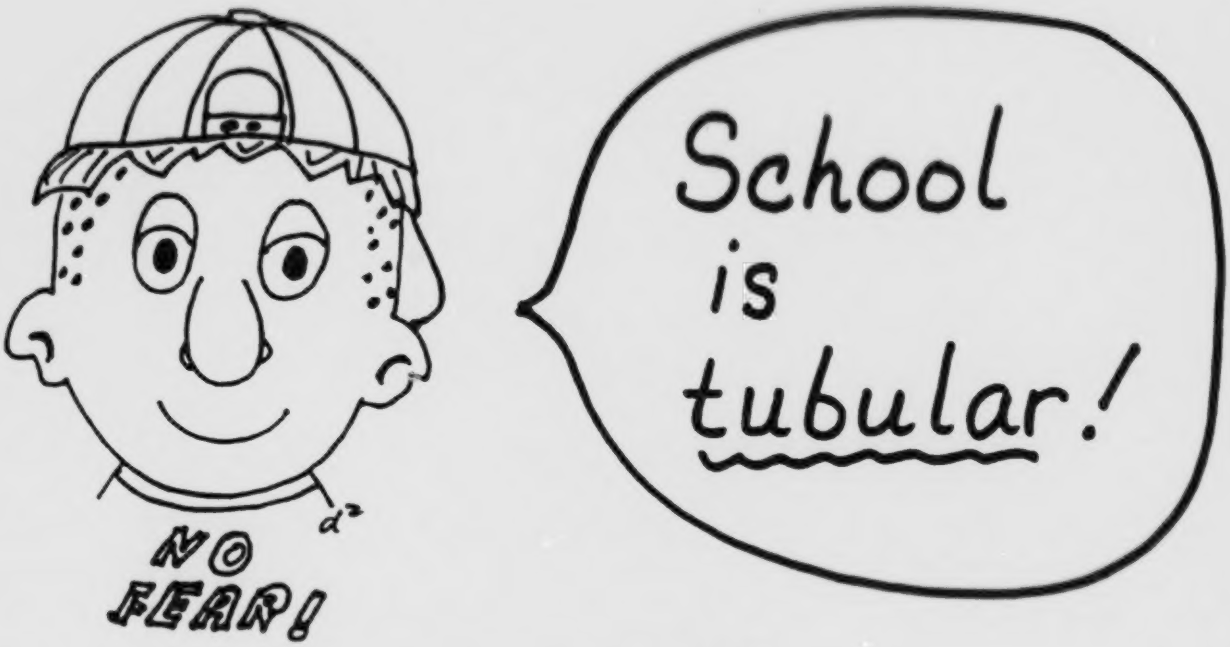
1970's

Transparency 1d


School is awesome!

1980's

Transparency 1c


School is tubular!
NO FEAR!

1990's

2: Look Who's Coming to School (10 Minutes)

Introduction:
Reaffirm that education and educational settings have indeed changed through the decades. Ask the following questions to stimulate discussion:

1. *Have students changed through the decades? Have you seen a change in your students during your own teaching career?*
2. *Are some challenges that teachers are facing now unique to the 1980's and 1990's?*

Presentation:

- There is a great diversity in our student population
- Labels do not reveal the individual or his/her needs as a student
- We have skills that enable us to work with this diverse population
- Labeling causes us to focus on the disability rather that the person

Put up transparency 2a. (This is a cartoon showing an absurdity of labeling) Discuss the following questions:

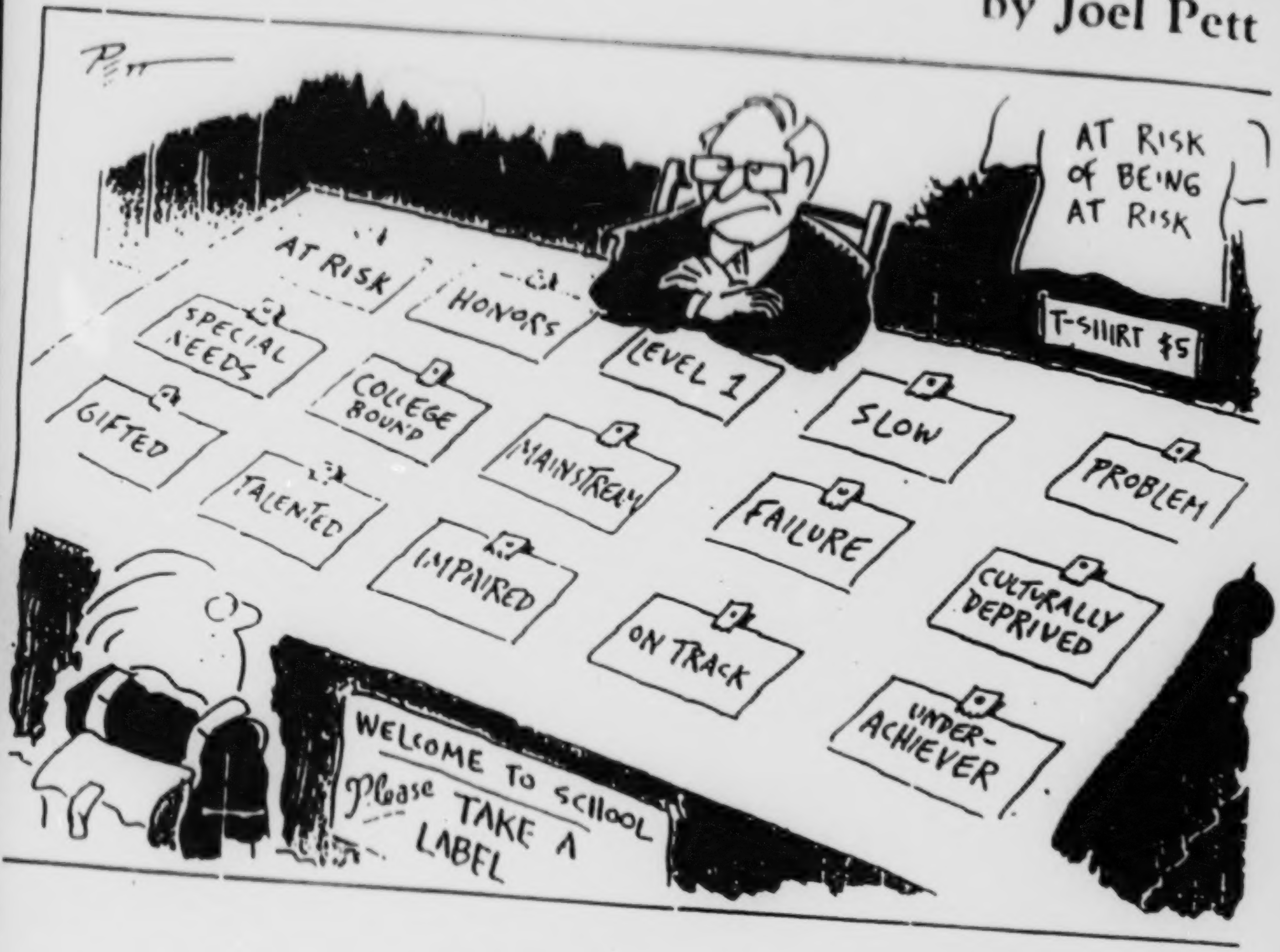
- Who is the 'typical' student?
- Is there a 'typical' student?
- Can all of us be "labeled" in some way that would set us apart?
- Can the use of labeling be negative?

Closure:
Summarize discussion by pointing out that we have a diverse student population. Teachers are dealing with that diversity everyday in their classrooms. Highlight that such experience in dealing with diversity enables teachers to become better problem solvers for their

Transparency 2a

Pett Peeves

by Joel Pett


PETT
AT RISK
HONORS
SPECIAL NEEDS
LEVEL 1
GIFTED
COLLEGE BOUND
SLOW
PROBLEM
MAINSTREAM
TALENTED
FAILURE
IMPAIRED
CULTURALLY DEPRIVED
ON TRACK
UNDER-ACHIEVER
AT RISK OF BEING AT RISK
T-SHIRT $5
WELCOME TO SCHOOL
Please TAKE A LABEL

BEST COPY AVAILABLE

#2 p2

students. Various labels do not point out the individuality of students and can, in fact, be detrimental.

*Note: Optional discussion for rural presenters. Rural presenters may want to note the diversity is in learning styles rather than learners.

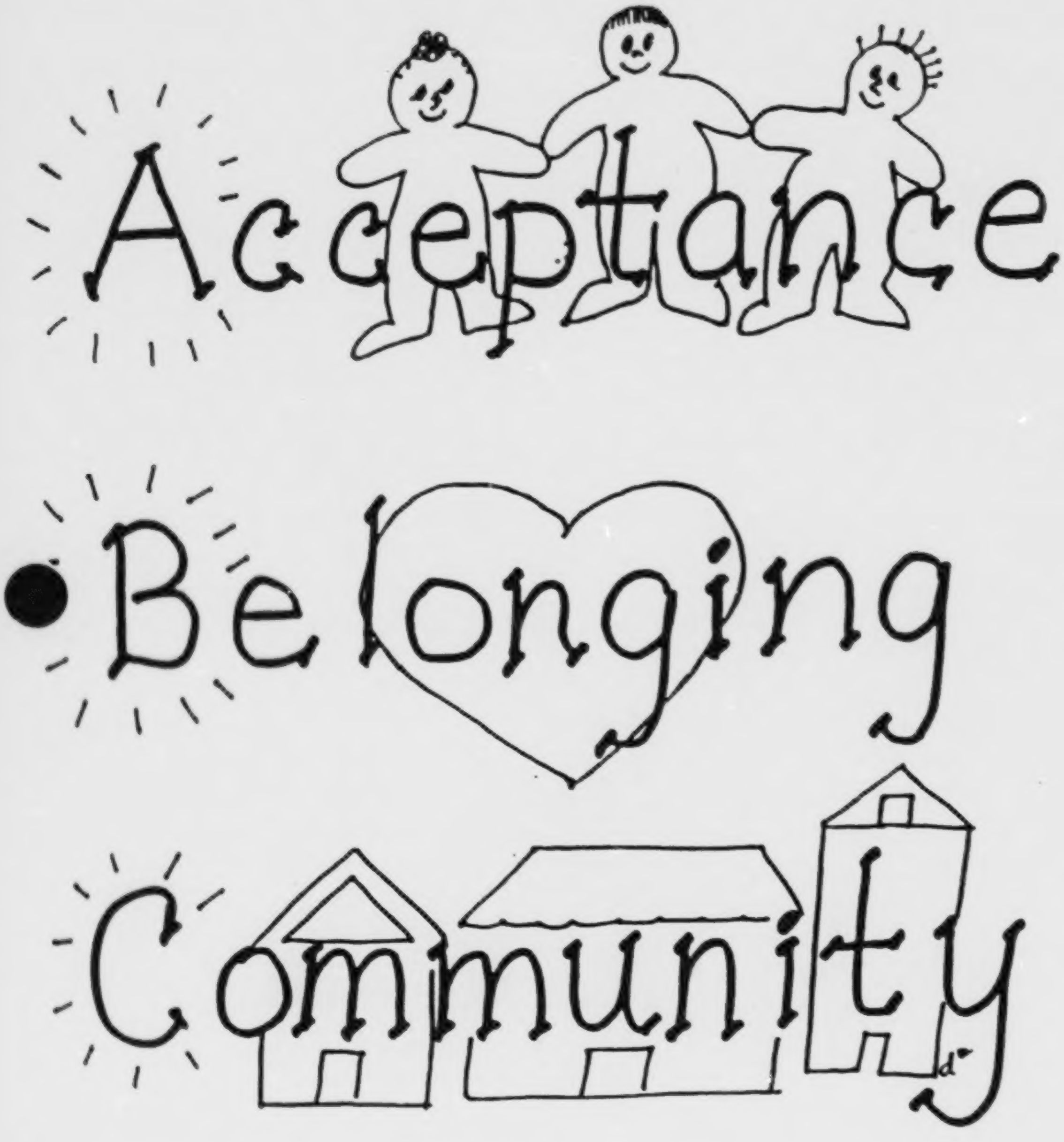
3: Look Who's Talking Now (15 minutes)

Presenters Notes:
Have available tape recorder set up and ready to use.

Introduction:
This is an audio tape of testimonials of teachers statewide involved in inclusive settings.

Following the audio tape, put up transparency 3a. (ABC's of Inclusion) Discuss how the ABC's of inclusion affects how we deal with student diversity and inclusion of all students in our schools. This is also optional handout 3a.

Transparency 3a
Optional Handout 3a


Acceptance
Belonging
Community

ABC's of Inclusion

4: A Look At Why We're Here (10-15 Minutes)

Presenter's Note:
Presenter will have a flip chart or overhead clear sheet to record responses of the participants goals of education.

Introduction:
The emphasis for this activity will be to share participants relationship to inclusion with educational outcomes.

- Brainstorm in one or two words what you find as valuable educational outcomes.
- Relate these outcomes to the list of inclusion values.
- Show the similarity of the two.

Examples: Goals of education

interdependence
belonging/friendships
skill development
self-esteem
prepared for future
sense of community
contribution
place within culture
all kids can learn
mutual respect
acceptance of diversity

Put up transparency 4a. Direct participants to handout 4a in their packets. This is a definition of inclusion taken from The Inclusion Papers by Pearpoint, Forest & Snow. Read through definition. Point out important points contained in the definition:

- Inclusion is acceptance: all people belong and each is valued for their individuality
- Inclusion is action: we are using our present and future skills to meet the diverse needs of our students
- Inclusion is growth: change in school systems gives us an opportunity to make changes for the better
- Inclusion is not a class placement: instructional placement options are multiplied by inclusion, not subtracted.
- Inclusion is not uniformity: rather diversity provides variety

Transparency 4a
Handout 4a

What is Inclusive Education?

"Inclusive education is a fundamental belief that considers each person an important, accepted member of the school and community. Inclusive educators work to create a sense of oneness and belonging within the group; they celebrate diversity within it. The focus is on the positive, including respect and integrity for all people."

--Syracuse University
Inclusive Education Project

"Inclusion means "being with"...It means affiliation, combination, comprisal, enclosure, involvement, surrounding...Inclusion means inviting those who have been left out (in any way) to come in...Inclusion is NOT about placing a child with a disability in a classroom or a school. That is only a tiny piece of the puzzle. Rather, inclusion is about how we deal with diversity, how we deal with difference...

--The Inclusion Papers
Pearpoint, Forest & Snow

5: A Look at Inclusion: Good for one, Good for all? (40 minutes)

Introduction:

Begin this activity by re-affirming the connection between the outcomes of education and the philosophy of inclusion. Emphasize that making changes in an established system can result in apprehension, uncertainty and misconceptions. Put up transparency 5a: Change is, Change is not.

Discussion/Presentation:

Think about what some of the concerns might be in moving toward more inclusive schools. Write down your thoughts on the stickies being passed out to your table. **Presenter: Have stickies, markers and large butcher paper sheets available. Hang 3/4 sheets of butcher paper on the wall. Collect the stickies from each group. Presenters take turns reading the concerns. Get several volunteers to put stickies on the butcher paper as you and the other presenter take turns reading them. Have the group decide on headings for each piece of butcher paper. They will become evident. Decide where the stickies should be placed. Ex: Staffing Issues. Issues will overlap (may need to stick some in between the sheets of paper).**

Where are the greatest concerns in the building ? Some buildings will see that Behavior is of great concern. This is a school-wide issue, not necessarily specific to special education.

Put up transparency 5b Managing Complex Change. For change to take place all components need to be in place. Discuss what happens when there are missing components. Examples: **Training** is taking place and classes are being offered to help teachers feel more confident in working with a diverse student population. **Incentives** can be different for different people. Some teachers prefer substitutes in their classrooms while they collaborate with their team, others would rather meet before or after school.

Transparency 5a

CHANGE IS	CHANGE IS NOT
A process that takes time	An occurrence or event
About individuals, their beliefs and actions	About programs, materials technology, equipment
Highly personal	Impersonal
Personal growth	Refusing to examine new or differing ideas

Adapted from Villa, Thousand, Stainback & Stainback (1993). *Restructuring for Caring and Effective Education.*

MANAGING COMPLEX CHANGE

VISION +	SKILLS +	INCENTIVES +	RESOURCES +	ACTION PLAN	= CHANGE
	SKILLS +	INCENTIVES +	RESOURCES +	ACTION PLAN	= CONFUSION
VISION +		INCENTIVES +	RESOURCES +	ACTION PLAN	= ANXIETY
VISION +	SKILLS +		RESOURCES +	ACTION PLAN	= RESISTANCE
VISION +	SKILLS +	INCENTIVES +		ACTION PLAN	= FRUSTRATION
VISION +	SKILLS +	INCENTIVES +	RESOURCES		= TREADMILL

Adapted from Knoster, T. (1991) Presentation at TASH Conference, Washington D.C. (Adap[illegible] by Knoster from Enterprise Group, L[illegible]

BEST COPY AVAILABLE

#5 p 2

Put up transparency 5c (this gives summary of research on inclusion) *State that research has been done on inclusion which point out the challenges and benefits to students.* Discuss what these research findings have been for students in inclusive settings. (This is also an optional handout for participant packets)

Activity:

With your group, discuss the benefits of inclusive education for students and staff. Identify two or three benefits to share with the large group. Think about a challenge listed on the stickies earlier. What creative solutions could be conceived to meet this challenge? Identify a challenge and creative solution to share with the large group.

Give participants about 5-10 minutes to discuss and select what is to be shared with the large group, then reopen the large group discussion.

Closure:

Summarize briefly the results of the group activity. Emphasize that any change presents new and different challenges; this is not a negativity, but a reality. As we move toward inclusive education, we need to keep in mind the great benefits that exist for all students.

Research about inclusion has been ongoing for 30 years:

1965 - Researchers concluded that regular class placements were a better educational alternative for students with mild disabilities.

1968 - Dunn found that mildly disabled students made as much or more progress in the regular classes as they did in special education classes.

1981 - Johnson & Johnson found that the development of positive attitudes toward people with disabilities came from ongoing, facilitated and informal opportunities to interact with them.

1984 - Brinker & Thorpe found that when students were provided with appropriate educational programs and support in integrated settings, they tended to learn more than they did in segregated settings.

1989 - In Vermont, there has been a 12.8% increase in the number of students who are able to succeed in regular classes without being labeled or removed for special intervention.

1993 - After three years of participating in an inclusive school, teachers surveyed initially opposed to or apprehensive about the shift to inclusion, reported that teaching in an inclusive setting had now become their preferred (optimal) teaching environment. (TASH)

Transparency 5c-2

1994 - Instructional Costs and Inclusive Schools (Salisbury & Chambers) For this district, providing integrated and inclusive resources within the district was substantially less expensive than providing services in a non-inclusive setting.

1995 - Hollowood, Salisbury, Rainforth, Polembara found that children with and without disabilities in a model inclusive school, spent equal amounts of time on-task in instructional activities. Furthermore, these students were engaged in instruction as often or more frequently than children in non-inclusive regular and special education settings. (Exceptional Children)

6: Looking at the Legal Aspects of Inclusion (15 minutes)

Presenter's Notes:
Prior to this activity, have ready the large labels that identify the legislation to be discussed. These will be taped up on the timeline which was used earlier in the inservice. It would be most effective if these labels (masters are included) are xeroxed on colored paper to be easily visible on the timeline. Note: If you are using the 2 hour agenda, the timeline and labels will not be used.

Introduction:
Begin activity by stating the following points:

- Thus far, inclusion has been discussed as a moral, democratic issue; it is also a legal issue
- Inclusion as we are defining it today has evolved via legislation and litigation
- Inclusion is not a local issue; it is nationwide

Presentation:
Use the summary sheet giving key points for each law/court case. Put up Transparencies 6a-1, 2, 3, 4, 5. (Summary sheet is also transparency.)
Discuss briefly each law and its relationship to inclusion. The emphasis here is to show that inclusion is supported legally and is, therefore, mandated. (if desired, an optional handout summarizing key legislation can be included in participants packet.) Discuss recent court cases pertaining to inclusion.

Note: Qualified Disabled Persons Under Section 504
A child is a "qualified disabled person" under Section 504 if he or she (1) has a physical or mental impairment that substantially limits one or more major life activities (such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working), has a record of such impairment: and (2) is of an age at which it is mandatory under state law to provide preschool,

Transparency 6a-1

Summary of Legislation & Litigation Regarding Inclusion

1954: Brown vs. Board of Education
- declared "separate but equal" education not equal
- set precedent for "discrimination suits" involving disabled children

1964: Civil Rights Act
- mandated desegregation
- impetus to rights of disabled individuals to equal rights & opportunity in education, employment & housing

1972: Mills vs. Board of Education
- right to education
- extended right to free public education to children with disabilities

Transparency 6a-2

1973 PL 93-112: Section 504--Rehabilitation Act

- * first federal civil rights law affecting individuals with disabilities
- * equal education & barrier free access
- * covers all physical & mental impairments that limit major life activites

1975 PL 94-142--Education of All Handicapped Children

- * free & appropriate public education
- * individualized educational plans
- *least restrictive environment
- * access to school participation
- * non-discriminatory evaluation, due process & confidentiality

Transparency 6a-3

1985 Regular Education Initiative

* grassroots movement for restructuring school services
* advocates partnership between regular & special educators to deliver services in the least restrictive environment

1986 PL99-457--Education of Handicapped Infants & Toddlers

* extends services of PL94-142 to handicapped children less than 3

1990 PL101-476--Individuals with Disabilities Education Act (IDEA)

* amends & extends PL94-142
* changes language to focus on individual instead of handicap
* adds assistive technology
* adds TBI (traumatic brain injury) and Autism

Summary of Recent Litigation Regarding Inclusion

1988/89 - Daniel R. vs State Board of Education According to this case, the courts set out factors to assist in the ANALYSIS of whether education in the regular classroom can be achieved satisfactorily. Regular Classroom being the least restrictive environment. They include:

1. What steps/efforts have been taken to accommodate the disabled child in regular education. (Documentation is very important)
2. Whether the child will receive an educational benefit from regular education including
3. What effect the disabled child's presence has on the regular classroom environment and thus, on the education the other students are receiving.
4. If regular class is not full-time placement, are there intermediate steps such as mainstreaming for part of the day.

1993 - West Virginia Doe vs Withers
This case involves the willingness of the regular classroom teacher to make modifications that are in the child's IEP. This teacher was personally fined $15,000 compensatory and punitive damages and had to pay the parents' attorney fees.

1994 - 9th. Circuit Court (Sacramento City Unified School District vs Holland, January 94) (Alaska is part of the 9th. Circuit Court) This case involved a student with a disability whose parents believed she could be educated in the regular classroom and the school disagreed. The burden is on the school to provide the documentation. The court adopted four factors in considering LRE:

1. The educational benefits of placement in a regular class full time. Can modifications be made so that it is academically beneficial for that child.

2. The non-academic benefits of such a placement (language development, modeling, social, appropriate and inappropriate behaviors, feeling of belonging, community)

3. The effect of the student on the teacher and children in the regular class

4. The cost involved.

(The Supreme Court refused to hear this case. It cost the District over one million dollars in legal fees).

elementary, secondary, or adult education to the handicapped (in Alaska ages 3 to 21).

A child with ADD/ADHD is a "qualified person with a disability" under Section 504 if (1) he/she is between the ages of 3 and 21, and (2) the disabling condition substantially limits the child's ability to learn or to otherwise benefit from his or her education program.

In effect, Section 504 covers a broader population of children with disabilities than does the IDEA. Section 504 eligible children require reasonable accommodations not an IEP.

Closure

Review the key points listed in the introduction to this activity. Reiterate what has been learned from the timeline: inclusion is a legal, mandated issue.

Headings for #6 (optional)

1954 Brown vs. Brd. of Ed.

1964 Civil Rights Act

1972 Mills vs. Brd. of Ed.

1973 PL 93-112:Sec.504

Headings for #6 (optional)

1975 PL 94-142

1985 Reg. Ed. Initiative

1986 PL 99-457

1990 PL 101-476 (IDEA)

7: Looking into it: What does inclusion "look" like in schools? (40 minutes)

Presenter's Notes:
Have available and ready a VCR/TV. Videotape is approximately 25 minutes long. Have prepared educational practices cards and two heading cards: TRADITIONAL APPROACH and INCLUSIVE-ORIENTED APPROACH (these are included). You can place these cards on chart paper or tape to an empty surface. Have tape available to post cards.

Introduction:
Introduce videotape: Regular Lives. This videotape shows inclusive education taking place at different grade levels. Ask participants to look for specific inclusive practices in the tape; share these at conclusion. (Note: this tape shows some of the challenges of including moderate and severely disabled students in regular education settings as well as teachers sharing common concerns. It would be appropriate here to emphasize that teachers work with many more mildly-disabled students and that most of the instructional adaptations we make are for these students.

Activity:
Following videotape, discuss briefly what was seen and identify specific inclusive practices observed. Distribute cards on which descriptions of certain educational practices have been written evenly among the participant groups. Give the following directions:

In your group, read and discuss the cards you have received. Decide if each one is a more traditional approach or a more inclusion-oriented approach. Come to a consensus and then put your cards up under the appropriate heading in the front.

Give participants approximately 5 minutes, depending on how many cards are distributed to each group. When all cards are up, discuss findings. After reviewing the cards, ask participants to consider which approaches they may be already using in their classrooms and school.

Closure:

Summarize activity. Ask participants to consider what practices they commonly use that could promote more inclusive education and which practices they might consider trying or using more frequently in their classrooms.

Cards for #7

TRADITIONAL APPROACHES

INCLUSION-ORIENTED APPROACHES

Cards for #7 - TRADITIONAL APPROACH or INCLUSIVE-ORIENTED APPROACH?

TEACHER IS INSTRUCTIONAL LEADER MOST OF THE TIME

COLLABORATIVE TEAMS SHARE LEADERSHIP

STUDENTS ARE PURPOSELY GROUPED BY SIMILAR ABILITY

STUDENTS ARE GROUPED TO PROVIDE DIFFERING ABILITIES

Cards for #7

INSTRUCTION IS GEARED TOWARD MIDDLE OF CLASS

INSTRUCTION IS GEARED TO MATCH STUDENTS AT ALL LEVELS OF ACHIEVEMENT

INSTRUCTION IS COMPETITIVE AND TEACHER-DIRECTED

INSTRUCTION IS COLLABORATIVE AMONG CLASS COMMUNITY MEMBERS

Cards for #7

INSTRUCTIONAL SUPPORTS COME FROM OUTSIDE THE CLASSROOM

NATURAL SOURCES OF SUPPORT ARE FOUND AND UTILIZED WITHIN THE CLASSROOM

STUDENTS ARE IDENTIFIED BY DISABILITY

STUDENTS ARE IDENTIFIED BY MEMBERSHIP IN PEER GROUP/CLASS

Cards for #7

STUDENTS ARE EVALUATED ON COMMON STANDARDS

STUDENTS ARE EVALUATED BY INDIVIDUALLY APPROPRIATE STANDARDS

8: A Not-so-last Look at Inclusion (5 minutes)

Summarize the following key points learned in this module:

- Great diversity already exists in our schools and we have already been working with students with diverse needs
- We currently have skills that will work with diverse populations of students
- Our educational outcomes reflect inclusionary beliefs; our goal is to educate each student
- Inclusion has been researched; benefits to all students are shown
- There are legal mandates for inclusion
- There are existing educational practices that promote inclusive education; many are already implemented and in use in Alaska

Materials Included in Presenter's Packet

1. Cover Sheet
2. Goals & Objectives of Inservice
3. Agendas: 3 and 2 hour presentations
4. Outlines: 3 and 2 hour presentations
5. Section plans, Transparencies, other materials
6. Audio tape
7. Videotape: Regular Lives: Video may be ordered by calling 1-800-344-3337 Price: $49.95

Supplies Needed for Presentation

1. 5 pieces of butcher paper or chart tablet paper (#1)
2. 2 colors - colored dots - 2 per participant (#1)
3. Set of colored markers
4. Transparency pers
5. 2 clear transparencies
6. tape
7. 3/4 pieces of butcher paper or chart tablet paper (#5)

Equipment Needed for Presentation

1. VCR/TV
2. Cassette Player
3. Overhead Projector and Screen

Descriptive List of Transparencies & Other Materials

#1 Headings: 1950's, 1960's, 1970's, 1980's, 1990's
Trans 1a: 1950's cartoon
Trans 1b: 1960's cartoon
Trans 1c: 1970's cartoon
Trans 1d: 1980's cartoon
Trans 1e: 1990's cartoon

#2 Trans 2a: Pet Peeves

#3 Audio tape
Trans 3a ABC's of Inclusion

#4 Trans 4a: Inclusion Papers

#5 Trans 5a: Summary Sheet
Trans 5b "
Trans 5c "

#6 Trans 6a-1
Trans 6a-2
Trans 6a-3
Trans 6a-4
Trans 6a-5
Headings (Optional)
#7 Video - Regular Lives
Cards for #7

Materials Included in Participants' Packets

1. Cover Sheet
2. Goals & Objectives of Inservice
3. Agenda
4. Optional handout: ABC's of Inclusion
5. The Inclusion Papers: definition of inclusion (as noted in 4a)
6. Optional handout: Inclusion Research (as noted in 5c)
7. Optional handout: Law Summary (as noted in 6a)

SETTING OUR SIGHTS ON INCLUSION:

An Introductory Inservice Module

PARTICIPANT PACKET

Developed by the Anchorage School District in collaboration with
the Special Education Service Agency

SETTING OUR SIGHTS ON INCLUSION

Continuing the Vision

(3 hour Presentation)

1: **Look Who's Coming to Teach**

A. Where did we personally participate on the "educational" timeline?

B. What did schools and classrooms look like at different points on this timeline?

2: **Look Who's Coming to School**

A. Who is the "typical" student?

B. What challenges are facing educators in our community?

C Have our schools changed to reflect community changes?

3: **Look Who's Talking Now! an audio presentation**

4: **A Look at Why We're Here**

A. What educational outcomes are we looking for in our district?

B. What is the definition of inclusion and how does it relate to our educational outcomes?

--------------------**Break**------------------------------

5: **Looking at Inclusion: Good for one, Good for all?**

A. What do the "experts" say are the benefits of inclusion for all students? A closer look at recent research regarding inclusion.

B. What benefits can we identify for ourselves and our students?

6: Looking at the Legal Aspects of Inclusion

A. Are we the only ones moving toward inclusion?

B. Is inclusion "legal"? A closer look at key legislation regarding inclusion.

7: Looking into it: What does Inclusion "look' like in school?

A. Is a picture worth a thousand words? Viewing a videotape showing an inclusionary setting.

B. Which educational approaches are more inclusionary? A closer look at traditional approaches vs. inclusion-oriented approaches.

8: A Not-so-Last Look at Inclusion

A. What have we looked at in regard to inclusion?

B. What will we see in the future?

SETTING OUR SIGHTS ON INCLUSION:
Continuing the Vision

GOAL:

To create an awareness and understanding of the philosophy of Inclusion.

OBJECTIVES:

Participants will gain an understanding of inclusion and its relationship to educational outcomes.

Participants will examine their attitudes and values to develop a more comprehensive view of inclusion.

Participants will be aware of legislation affecting inclusion.

Participants will identify educational approaches that enhance inclusion of diverse populations.

- Participants will understand the complexity of systems change and the time required for change to take place.
- Participants will examine the need for a partnership between administration, staff and families.

Transparency 3a
Optional Handout 3a

Acceptance

Belonging

Community

ABC's of Inclusion

Inclusion Papers
Snow, Pearpoint, Forest

Transparency 4a
Handout 4a

What is Inclusive Education?

"Inclusive education is a fundamental belief that considers each person an important, accepted member of the school and community. Inclusive educators work to create a sense of oneness and belonging within the group; they celebrate diversity within it. The focus is on the positive, including respect and integrity for all people."

--Syracuse University
Inclusive Education Project

"Inclusion means "being with"...It means affiliation, combination, comprisal, enclosure, involvement, surrounding...Inclusion means inviting those who have been left out (in any way) to come in...Inclusion is NOT about placing a child with a disability in a classroom or a school. That is only a tiny piece of the puzzle. Rather, inclusion is about how we deal with diversity, how we deal with difference...

--The Inclusion Papers
Pearpoint, Forest & Snow

Transparency 5c

Research about inclusion has been ongoing for 30 years:

1965 - Researchers concluded that regular class placements were a better educational alternative for students with mild disabilities.

1968 - Dunn found that mildly disabled students made as much or more progress in the regular classes as they did in special education classes.

1981 - Johnson & Johnson found that the development of positive attitudes toward people with disabilities came from ongoing, facilitated and informal opportunities to interact with them.

1984 - Brinker & Thorpe found that when students were provided with appropriate educational programs and support in integrated settings, they tended to learn more than they did in segregated settings.

1989 - In Vermont, there has been a 12.8% increase in the number of students who are able to succeed in regular classes without being labeled or removed for special intervention.

1993 - After three years of participating in an inclusive school, teachers surveyed initially opposed to or apprehensive about the shift to inclusion, reported that teaching in an inclusive setting had now become their preferred (optimal) teaching environment. (TASH)

Transparency 5c-2

1994 - Instructional Costs and Inclusive Schools (Salisbury & Chambers) For this district, providing integrated and inclusive resources within the district was substantially less expensive than providing services in a non-inclusive setting.

1995 - Hollowood, Salisbury, Rainforth, Polembara found that children with and without disabilities in a model inclusive school, spent equal amounts of time on-task in instructional activities. Furthermore, these students were engaged in instruction as often or more frequently than children in non-inclusive regular and special education settings. (Exceptional Children)

Transparency 6a-1

Summary of Legislation & Litigation Regarding Inclusion

1954: Brown vs. Board of Education

- * declared "separate but equal" education not equal
- * set precedent for "discrimination suits" involving disabled children

1964: Civil Rights Act

- * mandated desegregation
- * impetus to rights of disabled individuals to equal rights & opportunity in education, employment & housing

1972: Mills vs. Board of Education

- * right to education
- * extended right to free public education to children with disabilities

Transparency 6a-2

1973 PL 93-112: Section 504--Rehabilitation Act

- * first federal civil rights law affecting individuals with disabilities
- * equal education & barrier free access
- * covers all physical & mental impairments that limit major life activites

1975 PL 94-142--Education of All Handicapped Children

- * free & appropriate public education
- * individualized educational plans
- *least restrictive environment
- * access to school participation
- * non-discriminatory evaluation, due process & confidentiality

Transparency 6a-3

1985 Regular Education Initiative

- * grassroots movement for restructuring school services
- * advocates partnership between regular & special educators to deliver services in the least restrictive environment

1986 PL99-457--Education of Handicapped Infants & Toddlers

- * extends services of PL94-142 to handicapped children less than 3

1990 PL101-476--Individuals with Disabilities Education Act (IDEA)

- * amends & extends PL94-142
- * changes language to focus on individual instead of handicap
- * adds assistive technology
- * adds TBI (traumatic brain injury) and Autism

ALASKA INCLUSION TRAINING MODULES:
Building Inclusive Classrooms and Schools

Module 2: Curriculum Modification & Instructional Adaptation in Inclusive Schools

Susan Ryan, Ph.D.
Marie Doyle, Ed.D.

Module Series Edited by
Susan Ryan, Ph.D.
Diana Kurka

First Edition: May, 1995
Second Edition: May, 1997

This module is part of the Regular Education Full Inclusion Project training module series funded in part by Grant # H029K20200 awarded by the United States Department of Education, Office of Special Education Programs to the University of Alaska Anchorage, School of Education and the University Affiliated Programs; and funded via the Alaska Comprehensive System of Personnel Development, Alaska Department of Education. Module 1 is part of the inservice training series developed for the Anchorage School District. The content does not necessarily represent the position of the United States or the Alaska Department of Education or the Anchorage School District, and no official endorsement should be inferred.

We extend our appreciation to the site participants involved in the Regular Education Full Inclusion Project during the 1992-1995 grant years, and to the multiple disabilities specialists at Special Education Service Agency for their assistance and support with various aspects of the projects.

Prepared for Alaska Comprehensive System of Personnel Development for 1995 dissemination only. Permissions granted for limited 1997 distribution.

Building Inclusive Classrooms and Schools

Module 2

Curriculum Modification and Instructional Adaptation in Inclusive Schools

Module written by
Susan Ryan-Vincek, Ph.D.
Marie Doyle, Ed.D.

Used with permission

Curriculum Modification and Instructional Adaptation in Inclusive Schools

Supporting the Needs of Students
Who Experience Disablities in Regular Education
Classrooms and Schools:
A Training Module Series

Susan Ryan-Vincek, Ph.D.
Marie Doyle, Ed.D.

Edited by:
Susan Ryan-Vincek Ph.D.
University of Alaska Anchorage

Copyright 1994 by Susan Ryan-Vincek, Ph.D.

All rights reserved. No part of this work covered by copyright may be reproduced without the express written permission of the copyright holder.

Please contact:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
School of Education
3211 Providence Drive
Anchorage, Alaska 99508-8288
(907) 786-4854
(907) 786-1749 (FAX)

Sample citation:

Ryan-Vincek, S. and Doyle, M. (1995). Curriculum modification and instructional adaptation in inclusive schools. In S. Ryan-Vincek (Ed.), Supporting the needs of students who experience disabilities in regular education classrooms and schools: A training module series (pp. 1-100). Anchorage, AK: ASETS

Additional copies may be purchased from:
ASETS Printing
2330 Nichols Street
Anchorage, Alaska 99508
(907) 279-6617
(907) 278-7467 (FAX)
Allow 2-3 Weeks for shipping and handling.

This publication was developed, pursuant to grant number H029K20200 from the Office of Special Education Programs, U.S. Department of Education. While grantees are encouraged to express freely their judgements in professional and technical matters, points of view do not necessarily represent those of the Department of Education. Mention of trade names, commercial products or organizations does not constitute endorsement by the U.S. Government.

Curriculum Modification and Instructional Adaptation in Inclusive Schools

by

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:
Susan Ryan-Vincek Ph.D.
University of Alaska Anchorage

© Susan Ryan-Vincek

First Edition, First Printing
January, 1995

ACKNOWLEDGMENTS

There are many people who have contributed to the development of this training program including the University Affiliated Program of Alaska with the able assistance of Miriam Engebretson, Jan Westfall, Diane Ordner and Debi Wallstrom; the School of Education, University of Alaska Anchorage for their support of the Regular Education Full Inclusion Project; the full inclusion specialist project site participants including: the Anchorage School District participants Jim Kurka, Lisa Ballentyne, Teisha Burke, and Diana Kurka; Bering Straits School District participants Maggie Ferry, Tammy Dodd, Janet Stout; Hoonah City School participants Alice Williams and Sharon Hill; Skagway Schools participants Jeff Kasler, Kristin Nesheim, and Linda Sims; North Slope Borough School participants Dorothy Ahlalook and Debra Segevan; Yupiit School District participants Ruth deGraaf and Mary Peters; St Mary's School District participants Natalie Luehmann and Ursula Prince; Chugiak Childrens Services participants Deb Dorland, Barbara Humphreys and Angie Lewis; Lower Kuskokwim Schools participants Karen Waters and Elena Egoak; the year two mentees; Special Education Service Agency for their consultative support to the project; Peter Dowrick and Michael Carl for their support and words of encouragement; Patricia Kyle for her positive energy and support; Eileen Hughes and Mike Young for their friendship, insight, and experience; Michael Jack for his insights into life in rural Alaska; Charles Tuckfield for the project illustration; and Herb King for page layout and graphic design.

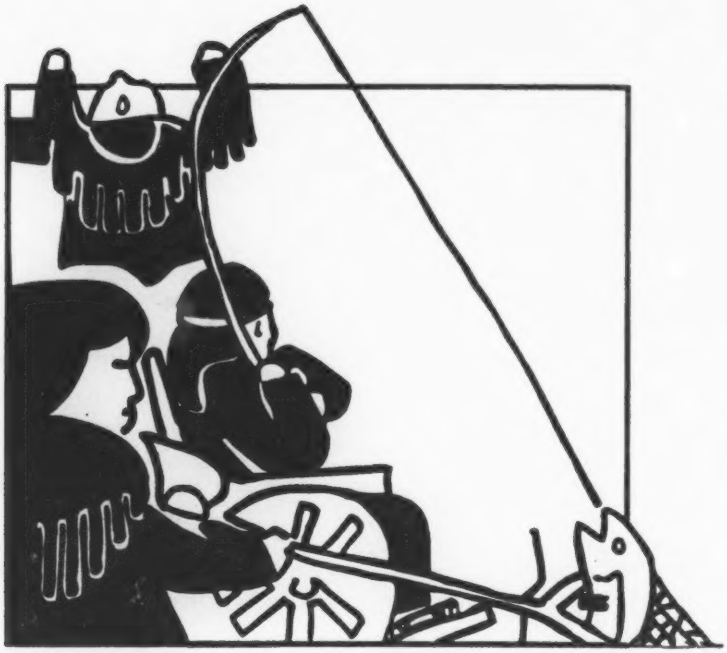
DEDICATION

In memory of Tia, Lindsay, Tyrel, and Alexie

With love and thanks to Darrell

Overview

Curriculum Modification and Instructional Adaptation in Inclusive Schools



Module Developers:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

OVERVIEW
MODULE COMPONENTS

This training module series is for building inclusive classrooms and schools contains four modules:

(1) Supporting Inclusion Through Collaborative Teaching Teams:

(2) Curriculum Modification and Instructional Adaptation in Inclusive Schools:

(3) The Essential Partnerships Among Families. Communities. and Schools:

and

(4) Cooperative Learning and Inclusion.

Key assumptions infused in each module include:

(1) targeting teams for training;

(2) local decision making and choice format: and

(3) supporting innovation, risk taking and creativity.

Targeting Teams for Training

The primary target audience for this training is professionals and paraprofessionals working in schools. These individuals may include but not be limited to the regular education teacher, special education teacher, or collaborative educator, teaching assistant, occupational and physical therapist, speech and language pathologist, principal, counselor, and social worker. Most schools use the team approach involving individuals from varying disciplines to provide educational services for students. The composition and configuration of teams will vary considerably across schools and districts.

There are two main assumptions that underlie the movement towards inclusive schooling reflected in these training modules. First, schooling is for all children. This means that each educator must ask him or herself how things can change to accommodate all children. Second, the effort to make education meaningful for all children must be a commitment that is made by the team as a whole. Team members working together, sharing a common vision and philosophy of how all children can succeed in schools, is an assumption that is woven through these training modules.

Some inservice training is directed towards particular disciplines, such as teachers, assistants, principals, or specialists. This approach typically results in fragmentation of service delivery. As Bailey and his colleagues (1993) suggest the involvement of all team members, including administrators, in training increases the likelihood that fundamental change will occur both at the building and classroom level. With administrators and itinerant related service personnels' involvement in inservice training as members of teams, all team members will gain a better understanding of the process and substance of changing schooling for all children.

We make the following recommendation regarding inservice training of teams using these modules:

1. Identify at least one team in a given school. This team should consist of all the individuals involved in providing services to that classroom.
2. If possible identify other teams throughout the school or district.

The key stakeholders in the school district need to be aware of the focus, content and process of the training. Whether or not administrators, staff development personnel, discipline administrators, or teacher union leaders are directly involved in the training, theses individuals should be aware of the nature of the training on developing inclusive schools and the types of programmatic, administrative, etc decisions that will likely result from the training. Ensuring either representation from varying disciplines, administrators and other key individuals will increase the likelihood that inservice training participants will feel that their effort is being spent in a meaningful and worthwhile endeavor.

Local Decision Making and Choice

Although the materials in these modules have been organized to be used in either an inservice or preservice program, there are many places where the facilitator can assist the trainees in choosing options such as readings, activities or assignments to engage in. The role of the facilitator is to provide a context in which to explore, practice, reflect and discuss issues as they relate to providing inclusive education. The ultimate goal of the training is for each participant to identify, and implement as part of the team, changes that need to occur to ensure quality education for all children.

Supporting Innovation, Risktaking and Creativity

These training modules are designed to encourage teachers, teaching assistants, principals, parents and related service personnel

OVERVIEW

Module Layout

The modules are organized by section. Each section contains: (a) purpose; (b) learner outcomes; (c) section content; (d) readings; (e) activity; (f) assignment.

Readings

Selected readings are contained in each module. For the most part, each section will contain both required and additional readings. Selection of readings is the prerogative of the facilitator and should be based on current readings relevant to the participants enrolled in the course/workshop.

Activities

Activities are included in each section of each module. Site facilitators can lead these activities at the weekly meetings with participants, or encourage participants to complete the activities at their individual sites. Activities are designed in an effort to allow participants an opportunity to practice and examine the contents of the section.

Assignments

Each section contains section assignments. These assignments are designed to be completed in collaboration with other team members. Each module contains several large assignments. Facilitators may wish to substitute assignments or omit select assignments in order to concentrate on other more appropriate ones.

Note to Mentors:

1. Identify all direct and indirect members of your team.
2. Contact each person and organize an initial meeting time.
3. Present an overview of the four modules.
4. As a group discuss the following issues:
    - When, where and how often will you meet? (We recommend that you meet weekly for one hour.)
    - Identify how you will structure your weekly meetings. You may want to use the meeting format presented in the Collaborative Teaming Module.
    - Identify in what specific ways you will be available to support the teams.

- If individual teams are interested in working together to complete either written or video assignments discuss how that will occur.
- Provide options for assignments that may require more time to complete.
- Contact project director with any questions.

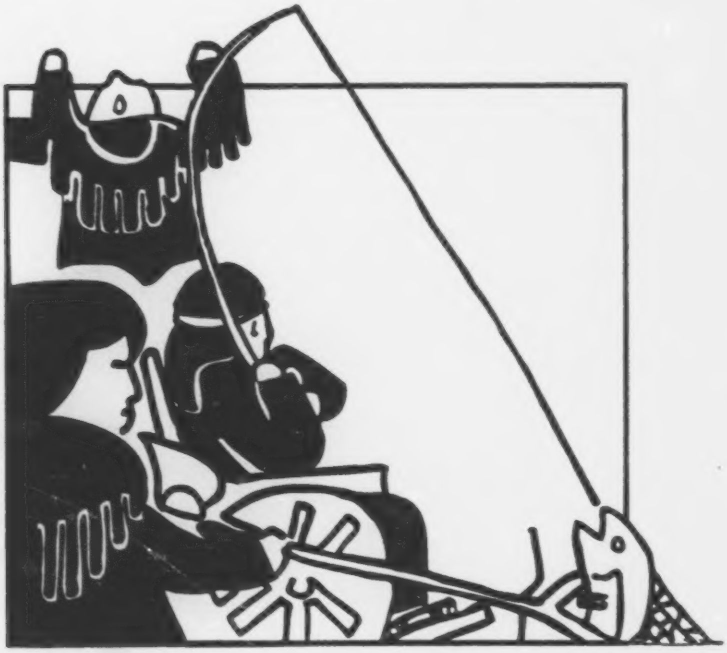
Specific Section Options

Options:

- require less reading reviews for participants
- allow participants to select the activities they would liketo complete
- combine assignments
- reschedule due dates

Section 1

Introduction to Curriculum and Instructional Modification & Adaption



Module Developers:

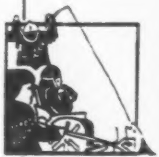
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 1
INTRODUCTION



PURPOSE

The purpose of this first section is to provide an orientation to the philosophy and framework of this module. We recognize that curriculum modification and innovative instructional approaches are critical to the successful inclusion into the regular education classroom of children who experience disabilities.

LEARNER OUTCOMES

1. Understand the purpose and values of full inclusion and the need for curriculum modification and innovative instruction.
2. Complete an assessment of classroom/school practices.

CONTENT FOCUS

Values and Assumptions

The Curriculum and Instructional Modifications and Adaptations module rests on five key assumptions.

1. **Belonging.** All students belong. It is an inherent right of every human being. It is not our intention to mold students "into carbon copies of normalcy, all having uniform abilities" (Kuhn, 1992). Rather we seek to propose ways in which all students who experience disabilities belong in their homes, schools and communities. Diversity and differences should be celebrated. We reference Norman Kuhn to illustrate this value.

   > "What is needed is a collective effort among all of us to search for ways to foster a sense of belonging in our schools, not only for students, but for the staff as well. For when we are able to rely on our peers' individual strengths rather than expecting to attain complete mastery in all areas, then belonging begins to precede achievement, and we may be welcomed into community not because of our perfection, but because of our inherent natural and individual capacities" (pg. 38).

2. **Interdependence.** For so long we have pushed to have students who experience severe disabilities achieve independence. In a world and community in which interdependence is more the outcome we are

suggesting that we need to embrace the concept of people needing people. People living in rural and remote communities are very interdependent on each other.

3. **Natural Proportions & Natural Supports.** Natural proportions in schools refers to a distribution of individuals in the school that reflects the diversity and proportion of individuals in the larger community. The principle of natural proportions related to students who experience severe disabilities applies to placement into school buildings as well as involvement in regular classes.

   In rural Alaska this is often an easy and common occurrence. However, in larger villages students who experience disabilities are often isolated in one resource or segregated classroom or all integrated into on particular regular education classroom. The principle of natural proportions would suggest that the child with a disability would attend the school and classroom that he or she would attend if she did not experience a disability. In this sense, one would see 1% of the classroom composed of students who experience disabilities. (In our population, only 1% of individuals experience a severe disability).

   The principle of natural proportions implies that students would be represented in classrooms where they would be if they did not have a disability, rather than artificially grouped in separate self contained classrooms or resource rooms. Approaching natural proportions in individual schools requires planning at the district level and frequently, multi-district level given the prevalence of cooperative and intermediate district programs or school resource and segregated classrooms all established to serve learners with moderate or severe disabilities (York & Vandercook, 1989).

   Natural supports usually refer to people who are typically available in a given environment and who can provide assistance to an individual with disabilities. For example, in a rural school the other classmates and the regular education classroom teacher can be natural supports to the student who experiences disabilities. Classmates and the regular education classroom teacher know about the demands, expectations, and opportunities in the regular class. They are in the best position to make these known to the child with the disabilities (York & Vandercook, 1989).

4. **Friendships.** We believe that all children should have an opportunity to develop friends. All students should be a part of their school and community. Friendships are developed at the very basic level from opportunities to share common activities, interests and experiences. This can only occur if children who experience disabilities have frequent and continual connection with other children in their school and community.

5. **Great Expectations.** Outcomes for children who experience disabilities need not be predetermined or limited. Children should receive encouragement and support to strive for the dreams and goals that they have. The future should not be limited or dictated by bureaucratic paperwork, district policy or building level limitations. All children should have the opportunity to fulfill their dreams.

Importance of Curriculum and Instruction Modifications & Adaptations to Inclusion

Life and schooling in America are changing. Outcomes that were sought for students in public schools fifty years ago are no longer relevant. Similar challenges are facing schools in rural Alaska. Children and adults are interacting with other people from different family structures, cultures, and languages. "The abilities of people with diverse backgrounds and characteristics to live harmoniously in an increasingly **interdependent** world will be influenced by society's decision to pursue inclusion-oriented or separate schooling for various groups" (Giangreco, 1992, p. 243).
The major goals of engaging in the modification of curricula and implementing innovative best practice strategies include:

a) value, accept and understand human diversity and interdependence;

b) increase the likelihood that children who experience disabilities will participate meaningfully in regular education classrooms;

c) community and parental involvement. What do they think about inclusion? The more they know what is going on within the school, the more they would appreciate what the teachers are trying to do.

HANDOUT 1.1

ASSESSMENT TOOL FOR TEACHERS

On a scale of (1= does not exist) to five (5= Exists at a very high level) check the box which you feel best represents the current status of services described in the left-hand column. you may explain your rating.

Description	1	2	3	4	5
1. A commitment to educating all students within the community school and your classroom.					
2. Students are grouped in your class by their own age and groups are labeled by number, grade level. rather than by disability.					
3. There is common lunch, recess and transportation for all students.					
4. The school and classroom are accessible.					
5. Class resources, including funding, serve all students fairly.					
6. There is a common schedule for all children in your classroom.					
7. A class plan exists for integration of people with disabilities.					
8. Teaching methodologies you use in your classroom encourage students to learn cooperatively.					
9. Your teaching approaches recognize that students live, play, and work in a larger society.					
10. All children are placed in valued roles (children with disabilities are not the only children who receive "help" from their peers).					
1 You access the support that you need via your administration, district and other teachers.					
12. You utilize the wisdom of other people including parents, other teachers, community members in developing strategies for integration.					

Adapted from Assessment Tool for Schools, Regular Lives Now

OVERHEAD 1.1

"Creating classrooms that honor and respect all children and all of their differences is an ongoing, time-consuming challenge...The most important thing that teachers can do is explore their own understandings, values, and beliefs about diversity...Only by exploring our own personal histories and experiences can we attempt to understand and challenge the effects of our upbringing so that we may create inclusive classrooms that model social justice and equality." (Shapon-Shevin, 1992, p. 34).

FOOD FOR THOUGHT

"We refer to a curriculum that helps all children make sense of their experiences as a curriculum rich in meaning. That is our shorthand expression for lessons that are concept-and theme-based and much more. This curriculum emphasizes knowledge worth taking time to probe and explore—perhaps a week, a month, or longer (Oakes & Lipton, 1990, p. 82).

"Teachers will become increasingly aware of the role of the classroom climate in the creation of powerful learning experiences for and with students" (Ford, Davern, and Schnorr, 1992, p. 60).

READINGS

Sapon-Shevin, M. (1992). Celebrating diversity, creating community: Curriculum that honors and builds on differences. In S. Stainback & W. Stainback, (Eds). Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes (p. 19-36).

Stainback, S., Stainback, W., Jackson, J.H. (1992). Toward inclusive classrooms. In S. Stainback & W. Stainback, (Eds) Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes (p. 3-18).

APPLICATION ACTIVITY/ ASSIGNMENT

Activity #1

Choose a convenient time for both the teacher, parent, teaching assistant, special educator and the building principal. View "Kids Belong Together". Discuss the video as a group. Include in your discussion issues such as the following:

* share your general reactions to the video

* what were the underlying values regarding education?

* how was the child who experiences a disability included in the school and/or classroom?

* describe the specific application this video has to your setting

Assignment #1

After completing the readings answer the questions in Handout 1.1. Discuss your responses with each other as well as your building principal and special education teacher and parent. In your journal respond to the following questions:

* what issues arose from this assessment that you were surprised about?

* during your discussion with your principal and special education team member what issues seemed to be focused on?

* are there any particular areas in your classroom that you will look at doing things a different way as a result of this section?

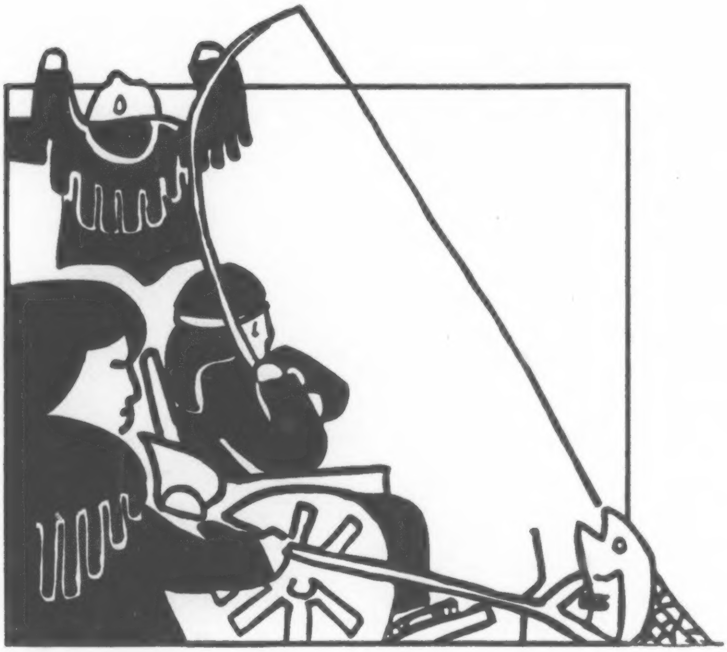
* are there areas in your school itself that your team wants to investigate and think differently about?

REFLECTIVE JOURNAL

Enter your thoughts and reactions to the questions posed in Activity 1 and Assignment 1. You can also include any reactions or participant comments that you have regarding your teams collaboration on these activities.

Section 2

What Is Curriculum?



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 2
WHAT IS CURRICULUM?

PURPOSE

In this section we offer a definition of curriculum. Our intent is to help the reader view curriculum in a broad sense in order to facilitate inclusion in the classroom through curriculum planning and modification.

LEARNER OUTCOMES

1. Participants will define the term curriculum.
2. Participants will select five curricular goals for th classroom and explore ways to help special need students achieve those goals.

Stop and do Activity #1 now

CONTENT FOCUS

Curriculum is more than subject matter. The curriculum is not only the official list of courses offered by the school, but also the purposes, content, activities, and organization of the educational program actually created in the schools by teachers, students, and administrators. The purpose of curriculum is to provide students with learning experiences in order to reach a set of educational outcomes. The aims and goals of schooling in today's society are broad in scope. Most educators strive to help students achieve more than the mastery of knowledge typically outlined in the school's scope and sequence.

EDUCATIONAL OUTCOMES

The grand aims of education include the following: to cultivate knowledge, to sustain and improve the society, and to foster the well being of individuals (Walker & Soltis, 1992).

Transmission of Knowledge

It is generally accepted that students should gain a basic level of knowledge in school. Traditionally, the focus of the curriculum in this area has included language (the ability to read, write, speak, and listen), command of basic computation skills, and mastery of basic facts and theories in fundamental subjects (science and social studies).

In today' society, however, mastery of knowledge and basic skills is not enough. "In an age when people struggle to keep pace with the growing body of worldwide information available, the ability to find strategies and processes for retrieving and utilizing this information is viewed as a critical outcome of education" (Ford, Davern, & Schnorr, 1992, p. 38). While there is continued focus on the transmission of knowledge, today's curriculum also includes an emphasis on critical thinking, problem solving, self-directed learning, and fostering a desire to learn in students.

The Curriculum and Society

The schools in American society are often called upon to act as an agent of change. Schooling provides a bridge between what is and what might be, between reality and the ideal. Curriculum aims related to the social role of education include the following:

Civic responsibility

Vocational preparation

Development of Democratic attitudes

Health

Personal and social adjustment

Ethical values and behaviors

Concern for the welfare of others

In recent years many social forces have impacted the curriculum. School are expected to prepare a workforce for a postindustrial society, prepare for global economic competition, foster integration of racial, economic, and social groups, and so on (Walker & Soltis, 1992). We live in an unstable and continuously changing world. The school curriculum should provide the tools to ensure every person's attainment of productive and responsible membership in a democratic society.

The Curriculum and the Individual

Schools and the school curriculum should help each student realize his or her potential. Curricular aims related to this educational outcome include the following:

Self-realization

Self-esteem, emotional stability, mental health

Creative expression

Cultivation of personal talents and interests

Wise use of leisure time

Preparation for contemporary life

Health and safety (Walker & Soltis, 1992).

Educational Outcomes for All Students

The grand aims of education should apply to ALL students in a democratic society. Each teacher makes a contribution to the overall outcomes of schooling. Greater emphasis may be placed on one of the aims or goals depending on the needs of the student. Decisions about which outcome should be a priority for an individual or group of students are made every day by classroom teachers. ALL students, however, can and should work toward the SAME broad outcomes of education. "What will differ is the level at which these outcomes are achieved and the degree of emphasis placed on each of them" (Ford, Davern, & Schnorr, 1992, p. 40).

STOP AND DO ACTIVITY 2 NOW

STOP AND DO ASSIGNMENT 1
and Assignment #2 Now

THE HIDDEN CURRICULUM

The hidden or implicit curriculum is not addressed through regular curriculum planning but nevertheless influences what and how students learn.

The curriculum is what the school provides or fosters, intended or unintended.

Climates are created in schools and classrooms. These climates transmit a set of values to students. School climate influences how and what students learn. The climate in a school or classroom can make the difference between students learning to:

Trust themselves and one another - or be fearful and suspicious:

Deal with problems through communication - or be silent, avoidant, or aggressive:

Support one another - or strive to outdo one another;

Respect one another - or ridicule and ostracize one another:

Consider the perspective of others - or view their own perspective as the only one with legitimacy;

Direct their own learning - or become dependent on the authority figure for motivation and discipline (Ford, Davern, & Schnorr, 1992).

Socialization and enculturation are important aspects of school learning. Students learn how society operates through many of the activities they participate in at school. Often these activities are not planned or a part of the written curriculum. They do provide students with powerful information about their social world and their place in it. Learning occurs as students interact with friends, play games, eat lunch together, plan programs, take turns being the line leader, participate in story time, field day, presentations, holiday programs, sports activities, dances, and extra-curricular clubs. When we consistently isolate and exclude children, we deny all students important opportunities for learning.

STOP AND DO ACTIVITY 3 NOW

ACTIVITIES

ACTIVITY #1- WHAT IS CURRICULUM?

Before you complete this section. write a definition of curriculum. The teacher and teacher assistant should share their definitions and understandings about curriculum and develop a definition that represents a common view of curriculum.

ACTIVITY #2- THE GOALS OF SCHOOLING

Review handout 2.1

Select five goals to emphasize in your classroom this year.

Reflect on these questions:

1. Are these goals appropriate for all students in the class?
2. How can we help our special needs student work towards these goals?

ACTIVITY #3 THE HIDDEN CURRICULUM

Review handout 2.2

Check the items that are valued in your classroom.

Reflect on these questions:

1. What lessons are the children in my classroom learning about themselves?
2. What lessons are the students in my class learning about others?
3. What social values are the students in my classroom learning?
4. Are all students participating in all aspects of schooling in some way?

ASSIGNMENTS

ASSIGNMENT #1

Write a one page paper outlining the curriculum goals you selected for particular focus in the classroom. Include ideas. questions. and/or concerns that emerged related to helping students with special needs achieve these goals.

ASSIGNMENT #2

Read:

Ford. A., Davern. L., & Schnorr. R. (1992). Inclusive education: "Making sense" of the curriculum. In S. Stainback & W. Stainback. (Eds.). Curriculum consideration in inclusive classrooms. Facilitating learning for all students. Baltimore: Paul H. Brooks (p.37-61).

2. Review the definition of curriculum you developed at the beginning of this section. Discuss and revise your definition in light of the material in this section. Write a one page paper outlining and defending your definition of curriculum.

Share this with the special educator, building principal, and the parent.

FOOD FOR THOUGHT

It is no longer acceptable to offer a rich curriculum filled with worthwhile content to the advanced students and a mishmash of endless review and worksheets to the rest of the children (O'Neal, 1990).

The goal must be to create a community that embraces differences, uses children's differences as part of the curriculum, and respects children's differences throughout all aspects of the school program (Sapon-Sheven, 1992).

Curriculum is all things children learn in school.

HANDOUT #2.1

GOALS I WANT TO EMPHASIZE

___ 1. Learn how to be a good citizen
___ 2. Learn how to respect and get along with people who think, dress, and act differently
___ 3. Learn about and try to understand the changes that take place in the world
___ 4. Develop skills in reading, writing, speaking, and listening
___ 5. Understand and practice domocratic ideas and ideals
___ 6. Learn how to examine and use information
___ 7. Understand and practice skills of family living
___ 8. Learn to respect and get along with people with whom we work and live
___ 9. Develop skills to enter a specific field of work
___ 10. Learn how to be a good manager of money, property, and resources
___ 11. Develop a desire for learning now and in the future
___ 12. Learn how to use leisure time
___ 13. practice and understand the ideas of health and safety
___ 14. Appreciate culture and beauty in the world
___ 15. Gain information needed to make job selections
___ 16. Develop pride in work and feelings of self-worth
___ 17. Develop good character and self-respect
___ 18. Develop skills in mathematics and science
___ 19. ____
___ 20. ____

HANDOUT #2.2

THE HIDDEN CURRICULUM

THINGS THAT ARE VALUED IN MY CLASSROOM:

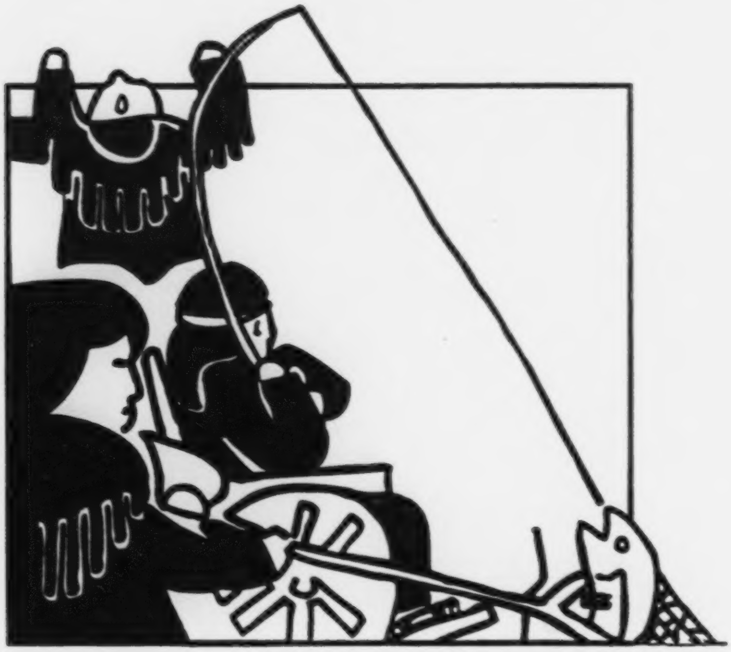
___ maintenance of order
___ democratic procedures
___ autocratic procedures
___ individual dignity
___ flexibility
___ competition and contests
___ concern for others
___ mistakes
___ questions
___ the right answer
___ creative ideas
___ cooperative learning
___ obedience
___ participatory decision making
___ listening
___ diversity
___ conformity
___ humor
___ ability groups
___ due process
___ a high degree of interaction
___ silence

READINGS

Ford, A., Davern, L., & Schnorr, R. (1992). Inclusive education: "Making sense" of the curriculum. In S. Stainback & W. Stainback, (Eds.). Curriculum consideration in inclusive classrooms. Facilitating learning for all students (pp.37-61). Baltimore: Paul H. Brooks

Section 3

Why Should We Modify Curriculum?



Module Developers:

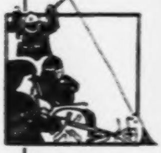
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 3
WHY SHOULD WE MODIFY CURRICULUM?



PURPOSE

In this section we offer a rationale for curriculum modification to meet the learning needs of all students. Current research on learning suggests inclusive classrooms benefit all students. Current thinking related to instructional reform supports curriculum modification for all students and best practice guidelines for inclusive classrooms.

LEARNER OUTCOMES

1. The participants will be able to identify 5 reasons for modifying the regular education curriculum to meet the needs of students who experience disabilities.
2. The participants will gather and summarize information on the level of agreement and need for improvement of best practices within your school from at least five individuals including the building principal, other teachers and teaching assistants, support service personnel, students, parents and other community members.
3. The participants in conjunction with the building principal and special education teacher will select and prioritize best practices to be improved in their school.
4. The participants in conjunction with the building principal and special education teacher will develop action plans to move towards meeting the priorities identified in the best practice guideline forms.

CONTENT FOCUS

Research on Learning

The American Psychological Association (1991) recently developed a set of learner-centered psychological principles based on current research findings in cognitive science. These principles take into account psychological factors that are primarily internal to the learner, while recognizing external environmental or contextual factors that interact with these internal factors. Five learner-centered principles are particularly relevant for teachers interested in developing inclusive classrooms. Each principle is listed in Handout 3.1 followed by learning and instructional implications for educational practice. Learning implications expand on the relation of each principle to the individual learner, and the interaction between internal and external factors in the learning process. Instructional implications provide guidelines that pertain to the impact of each principle on educational practice.

HANDOUT 3.1

Principles of Learning

PRINCIPLE 1: Individuals proceed through discrete, identifiable progressions of physical, intellectual, emotional, and social development that are a function of unique genetic and environmental factors.

Learning Implications:

Children learn best when material is appropriate to their developmental level, presented in an enjoyable and interesting way, while at the same time challenging their intellectual, emotional, physical, and social development. Unique environmental factors (e.g., the quality of language interactions between adult and child and parental involvement in the child's schooling) can influence development in each area. Application of materials that are developmentally appropriate still takes into consideration that these activities and materials are age appropriate and preserve the dignity of the student.

Instructional Implications:

- Effective instructional materials and curricula are appropriate to the unique intellectual, emotional, physical, and social, characteristics of students.
- Effective instructional practices are flexible in matching individual student needs with variations in instructional format and processes, including content, structure, strategies, and social settings.
- Effective instructional practices for developmental diversity emphasize respect and acceptance of differences and discourage stigmatizing (e.g., grade level retention, isolation of children with special needs).
- Effective schools are prepared to present materials at different developmental levels to same-aged children.

PRINCIPLE 2. Learning is facilitated by social interactions and communication with others in a variety of flexible, diverse (cross-age, culture, ability, family background, etc.), and adaptive instructional settings.

Learning Implications:

Learning is facilitated by including diverse settings that allow the learner to interact with a variety of students from different cultural and family backgrounds, interests, abilities and values. Divergent and flexible thinking as well as social competence and moral development are encouraged in learning settings that allow for and respect and welcome diversity.

Instructional Implications:

* Effective strategies for grouping students for learning activities provide for an appropriate diversity of abilities, ages , cultures, and other stable individual differences.
* Effective practices for evaluating student learning and fostering learning goals are formed around the notion of personal achievement, rather than comparisons with the performance of others.
* Effective schools and classrooms facilitate and encourage cooperation and standards that engender respect for diversity and individual differences, and discourage practices such as labeling and ability tracking that disrespect these differences.
* Effective instructional settings include those that attend to meaningful activities (e.g., apprenticeship settings) wherein knowledge can be contextualized and anchored to meaningful and relevant prior knowledge and experience.
* Effective practices include cross-age and peer tutoring models. Effective curricula avoid reliance on grade level materials that are too easy for fast-learning students and too difficult for slow-learning students.

PRINCIPLE 3. Self-esteem facilitates learning and is heightened when individuals are in respectful and caring relations with others who see their potential, genuinely appreciate their unique talents, and accept them as individuals.

Learning Implications:

An individual's access to higher-order, healthier levels of thinking, feeling and behaving is facilitated by quality personal relationships. Teachers' states of mind, stability, trust, and caring are preconditions for establishing a sense of belonging and positive climate for learning.

Instructional Implications:

* Effective learning environments are warm, comfortable, supportive; they provide a climate in which students' insecurities are alleviated and they feel a sense of belonging.
* Effective instructional practices that foster quality adult/student relationships based on understanding and mutual respect reciprocally reduce levels of stress and insecurity in students and teachers.
* Effective school management provides students, teachers, and parents with input into and responsibility for curriculum, discipline rules, and other policies and practices to fully address a secure and supportive climate for students and teachers.

PRINCIPLE 4: Although basic principles of learning, motivation, and effective instruction apply to all learners regardless of ethnicity, race, gender, presence or absence of a disability, religion, or socioeconomic status, learners differ in their preferences for learning mode and strategies, the pace at which they learn, and unique capabilities in particular areas.

Learning Implications:

The same basic principles of learning, motivation, and effective instruction apply to all learners. At the same time, however, learners have unique capabilities and talents, and have acquired different preferences for how they like to learn and the pace at which they learn. In addition, it must be recognized that learning outcomes are an interactional and interdependent function of student differences, as well as curricular and environmental conditions.

Instructional Implications:

* Effective instructional practices ensure that all students have experience with (a) teachers interested in their area of instruction, (b) positive role modeling and mentoring, (c) constructive and regular student evaluations, (d) high teacher expectations, and (e) use of questioning skills to actively involve them in the learning process.
* Effective learning environments provide individualized standards and requirements for all students, while showing respect for cultural diversity, developmental and other differences.

- Effective schools accommodate differences in intelligence and other special talents in the musical, spacial, and social domains.

PRINCIPLE 5: Beliefs and thoughts, resulting from prior learning and based on unique interpretations of external experiences and messages, become each individual's basis for constructing reality or interpreting life experiences.

Learning Implications:

Unique cognitive constructions form a basis for beliefs about and attitudes toward others. Awareness and understanding of these phenomena allow greater choice in what one believes, more control over the degree to which one's beliefs influences one's actions, and an ability to see and to take into account others' point of view. The cognitive and social development of a child and the way that child interprets life experiences is a product of prior schooling and home and community factors.

Instructional Implications:

- Effective curriculum materials and activities help students increase self-awareness and understanding and in turn, assist students to understand different individuals, as well as different social and religious groups.
- Effective learning materials and activities encourage students to see positive qualities in all groups of learners, regardless of race, sex, culture, physical handicap, or other differences.
- Effective curricula also include activities that promote empathy and understanding, respect for individual differences, and valuing of different perspectives.

STOP AND DO ACTIVITY #1 NOW

CONTENT FOCUS (CONTINUED)

Best Practice Guidelines for Meeting the Needs of All Students in Local Schools in Rural Alaska through Curriculum Modifications

This section is adapted from the Vermont Implementing Best Practices for All Students in Their Local Schools (Fox & William's, 1991). The guidelines are values underlying beliefs as research supported best practices for implementing educational programs for students who experience severe disabilities in the regular educational classroom in their local schools.

The developers of this module seek to develop curriculum modification strategies that will ensure that learners who experience severe disabilities become capable, involved and connected individuals. The guidelines, consistent with their original author's intention (Fox & William's, 1989, p. 2), were modified to be standards for determining school involvement and participation for students who experience severe disabilities in rural Alaska.

School Life and Atmosphere in Rural Alaska

Common values and philosophy. The school has a philosophy statement and objectives that are developed by administrators, staff, students, parents, school board members, and other community members such as village elders and that reflect the school's commitment to meeting the individual needs of all students in age-appropriate general education and community settings.

Atmosphere of caring. The school atmosphere is established by all school members and helps foster every students feeling of self esteem, establishes high achievement expectations for all students, and encourages the development of caring personal relationships among all students and staff.

Recognition of accomplishments. The school provides many opportunities to acknowledge and celebrate the accomplishments of staff, students parents, administrators, community members.

Lifelong learning. The school acknowledges the need for improvement and lifelong learning by having a professional development plan that includes regular inservices, technical assistance, peer coaching, observations and mentoring.

Establishment of ongoing supports. The school has an established system of instructional support for all children and staff that is developed by administration, staff, students, parents, and other community members.

Collaborative Planning in Schools in Rural Alaska

Practicing collaboration. The school has a system for providing training to all staff members to become proficient at functioning in a collaborative manner.

Time. The school provides **time** during school hours for support teams to meet and for individual team members to provide support to other teachers, students and parents.

Specified roles. The roles of each teaching team member are specified by the team, agreed upon, and supportive of the educational needs of the individual students.

Respect for Differences in Rural Alaskan Schools

Social responsibility. The school curriculum provides structured opportunities for students to learn about and appreciate individual differences among people.

Activity involvement. The school provides opportunity for all students to be involved in extra curricular activities.

Curriculum Planning Sensitive to Life in Rural Alaska

Meaningful participation. The school's curriculum is developed by teachers/staff, parents, students, administrators and community members with an emphasis to community and societal issues as well as age appropriate content (e.g., language arts, math, history, arts, science, health, etc.) and process oriented (problem solving and collaboration skills) which promote meaningful participation in activities in school, home, and community for all students.

Meaningful outcomes. The school's curriculum for students who experience disabilities contain evaluation criterion that include performance outcomes that are meaningful.

Delivery of Instructional Support Services in Rural Alaskan Settings

Inclusive supportive staff. The support services and staff are integrated and incorporated into ongoing school and community activities and not **separate** from the regular education curriculum and activities.

Pull out services tied to student's need. The decision to pull a child out of the regular education classroom is made by the team based upon documentation that the child's needs can **not** be achieved through the use of supplementary aids and services in the regular education classroom.

Child's priority areas. Pull out services to meet student needs which cannot be met through ongoing activities. are scheduled during activities that are determined by the team to be low priority for the student.

Inclusive support services. Support services for the delivery of instructional services include support to not only the student who experiences a disability but additionally to teachers, staff, administrators, teaching assistants, volunteers, and other people that are identified.

Individualized Instruction for Students in Rural Alaskan Schools

Use of a variety of teaching methods. The school provides opportunities for all staff to become proficient at using a variety of instructional methods including cooperative learning, incidental teaching, computer-assisted instruction. These methods are matched to individual student needs, and incorporate methods into ongoing activities.

Use of a variety of instructional groupings. Teachers use a variety of instructional groups that are matched to the individual needs of the student. This does not mean ability grouping but rather grouping to support the individual needs of each students.

Use of a variety of "teachers". The school acknowledges that many individuals can be "teachers". Instruction can be provided by peer tutors, volunteers, village elders, teaching assistants, peer mentors, teachers and administrators and parents. Again, these "teachers" are matched to the needs of the individual students.

Use of a variety of materials. The school provides a variety of instructional materials such as pictures, computers, video, telephones, textbooks, journals, articles to facilitate the learning of all children.

Acceptance of a variety of responses. The school acknowledges that children can demonstrate their skill and knowledge of a particular curricular area through a variety of responses. The school ensures that teachers incorporate the concept of alternative assessment to allow students to demonstrate their acquisition of a particular skill.

Monitoring and Data based decisions. Teachers maintain clear lessons and information on what is taught and the outcomes that students make. These data assist in future curricular planning.

Schedules. The teacher maintains a current daily schedule.

School as Community Center

Free access. The school allows free access to parents and families.

Information. There is information available that is current and accurate that is available to all families regarding services and supports that are offered in their community.

Decision making. The family is a key player in their child's education and is involved in all decisions.

HANDOUTS

HANDOUT 3.1

Best Practice Guidelines for Meeting the Needs of all Students in Local Schools (Fox & Williams, 1991 p. 6-10).

HANDOUT 3.2

Best Practice Survey Summary Chart (Fox & Williams, 1991. Appendix A)

HANDOUT 3.3

Best Practice Selection Worksheet (Fox & Williams, 1991. Appendix A)

HANDOUT 3.4

Action Plan (Fox & Williams, 1991. Appendix A)

READINGS

Ferguson, D., & Jeanchild, L. (1992). It's not a matter of method: Thinking about how to implement curricular decisions. In S. Stainback & W. Stainback. (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes. p. 159-173.

Fox, T., & Williams, W. (1991). Implementing best practice guidelines for meeting the needs of all students in local schools. Burlington, VT: Center for Develpmental Disabilities.

ACTIVITY

Consider the five principles of learning. Which ones do you currently integrate into your classroom teaching? Discuss.

ASSIGNMENTS

1. After completing the section content and the readings review all the handouts. Identify the five individuals with whom you will conduct the following assignment. Remember that the principal, parent of the student who experiences a disability, and the special educator must be among the five individuals with whom you complete this task. Next, share the readings and section content with these individuals. You can provide them with their own copy or simply summarize and discuss the content with them over coffee and refreshments. Provide them with a copy of the Vermont Best Practice Guidelines for Meeting the Needs of All Students in Local Schools (Fox & Williams, 1991, Appendix A). Ask them to take about 30 minutes to fill it out. You can leave it with them and allow time to complete it. Collect these surveys from all five participants and

2. Complete the best practice summary chart. Next,

3. Reconvene your five participants and complete the Vermont Best Practice Selection Worksheet. This activity will identify the system, policy and training needs that you will want to address. Next,

4. As a group complete the Vermont Action Plan form.

5. As a group consider the following questions:

    *What new information did you learn about your school?

    *How can you go about meeting the goals that you set?

    *Can students, school staff, families and community members meet together in a supportive fashion to improve your school?

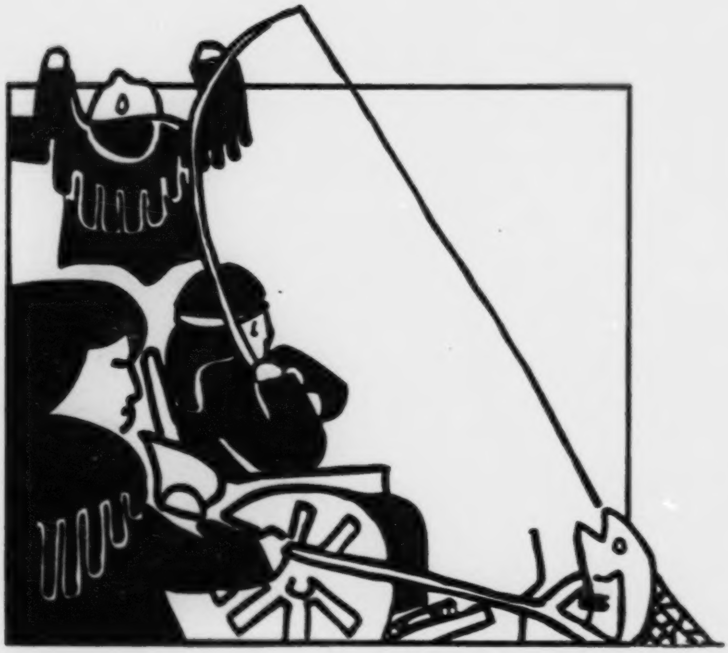
    Enter your reactions and new insights into your journal.

REFLECTIVE JOURNAL

Enter reactions from Activity and Assignments in your reflective journal.

Section 4

Principles Underlying Curriculum Modification



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 4
PRINCIPLES UNDERLYING CURRICULUM MODIFICATION

PURPOSE

In this section we offer a condensed list of simple strategies or principles that can be used to facilitate inclusion through curriculum modification.

LEARNER OUTCOMES

1. Participants will identify and describe 5 principles that facilitate full inclusion.
2. Participants will critically analyze the video "The Way to Go" and identify at least 5 areas in which there may be inconsistencies in the examples provided.

CONTENT FOCUS

Establishing a School Philosphy

Change can occur in an organization, school, community or classroom as a result of a number of activities or events. Traditionally, change is thought of as trickling down, from the "administration" or any higher level in the organization. This however, is not always the case. Some of the most profound change in society and the world has come from a small group of committed individuals. This type of change would be characterized as "bubble up".

Given this, we also recommend that each program, classroom and school have a philosophy regarding the promotion of inclusion. Ferguson and Asch (1989) suggest, "Integration is not an experiment to be tested, but a value to be followed" (p. 137). The building principal, the community elders, and the school board can be instrumental in establishing a philosophy that all children can learn and belong in the mainstream of their school and community life. To accomplish this, the community and school may need the encouragement, support and assistance of parents, teachers and students to enable schools to change. This is our first recommendation: develop a school and classroom philosophy.

Use Common Sense

Teaching is hard work. All students, and especially students who experience severe disabilities need teachers who are creative, innovative, talented and exciting. These students also need teachers who have their feet planted firmly on the ground. Teachers who are able to integrate concepts and best practice philosophy and strategies into the real world, are those teachers who balance their innovations with common sense. Therefore, our second strategy is to acknowledge that often the supports, the resources, the materials the programs that will assist the student the most are the ones that are generated by using simple common sense.

Integrate Concepts, Techniques, Professionals, Materials

The third strategy is to integrate adults, students, techniques, materials and concepts. Integration is not just a lofty, philosophical statement. Integration includes some very specific elements. Teachers will discover that integrating adults, materials, concepts, and techniques will ensure that the concept of integration goes beyond philosophy or rhetoric. Using a variety of techniques, materials, and settings will increase the likelihood that children who experience disabilities gain from the inclusion settings.

Adults will recognize that no one person has all the expertise required to meet the diverse needs of all students. Sharing responsibilities and workload will help ensure that quality teaching is provided for all students.

Promote Support

Understanding, acceptance and support for inclusion of students who experience disabilities can start with one person, one classroom and one building. Successful demonstration projects that encourage school personnel and parents to visit can be very helpful in promoting widespread acceptance and support (Stainback & Stainback, 1988).

One of the key strategies to successfully implement an inclusive program is the recognition that no single type of support can provide the range of assistance needed by the teachers and students in inclusive classrooms. We have come to realize that generally there is a need to blend a set of interconnecting and varying supports into a comprehensive and coordinated linked system of supports. The following lists illustrates the type and variety of supports that can be offered.

*informal and formal consultation between teachers and principals

*integration task force

*teams

*cooperative learning groups

*peer tutoring

*community volunteers

*buddy systems

*building friendships

Develop Local Neworks of Support

Support available on the local level is the most effective type of support. A popular bumper sticker notes this recommendation: "think globally, act locally". In the following section of this module we will discuss the concept of "circle of friends". This strategy has been developed to facilitate the use of local students, teachers, friends and neighbors in the support of a student who experiences disabilities.

Provide Instruction Naturally

Using the natural setting, natural materials and natural activities underlies the concept of providing instruction naturally. In other words, capitalizing on the materials, people, activities that are characteristic of the setting will help insure that simple solutions are used before expensive, unrealistic and out of reach solutions are sought. Instruction should be provided by modifying and adapting these elements.

Promote Respect

When students, teachers, administrators and community members demonstrate respect for diversity and differences, all students are valued. Teachers and administrators can do this by acknowledging that all children belong in their school; that there are no specific rooms or areas of the school that are designated as belonging to certain students; that contributions and successes of all students are celebrated. Teachers and administrators can demonstrate respect by modeling respect themselves, respect for different ideas, different ways of doing things, and different ways of learning. From families we learn much about the concept of respect.

HANDOUT 4. 1

"We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven't done it so far"

(Edmonds, 1979, p. 29).

OVERHEAD 4.1

Simple Principles Underlying Curriculum Modification

- Establishing a school philosophy
- Use common sense
- Integrate: people, concepts, methods and materials
- Promote support
- Develop local networks of support
- Provide instruction naturally
- Promote Respect

FOOD FOR THOUGHT

"In some cases just having a student with severe disabilities in a classroom can foster greater respect and understanding about individual differences among all class members" (Stainback & Stainback, 1988, p. 17).

"In integrated classrooms all children are enriched by having the opportunity to learn from one another, grow to care for one another, and gain the attitudes, skills, and values necessary for our communities to support the inclusion of all citizens" (Vandercook, Fleetham, Sinclair, and Tetlie, 1988, p. 19).

READINGS

Stainback, W., Stainback, S. & Moravec, J. (1992). Using curriculum to build inclusive classrooms. In S. Stainback & W. Stainback, (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes. p. 65-84.

Stainback, S. & Stainback, W. (1990). Inclusive schooling. In W. Stainback & S. Stainback, (Eds). Support networks for inclusive schooling: Interdependent integrated education. Baltimore: Paul H. Brookes. p. 3-24.

Stainback, S. & Stainback, W. (1990). Facilitating support networks. In W. Stainback & S. Stainback, (Eds). Support networks for inclusive schooling: Interdependent integrated education. Baltimore: Paul H. Brookes. p. 3-24.

SECTION ACTIVITY/ASSIGNMENT

Choose a time that is convenient for both teacher and teaching assistant, the building principal, the parent, and the special education teacher. Invite at least one other parent and anyone else that you would like. **View the video "The Way to Go"**. Discuss the video along the following dimensions.

***Respect for students.** Using specific examples from the video identify situations in which the student with the disability was **Not** treated with respect.

***Natural proportions.** Identify specific scenes in the video that did not reflect the principle of natural proportions.

***Inclusion versus stigmatization.** Identify specific examples where the student who experiences a disability could actually be stigmatized by an activity in which he/she was participating.

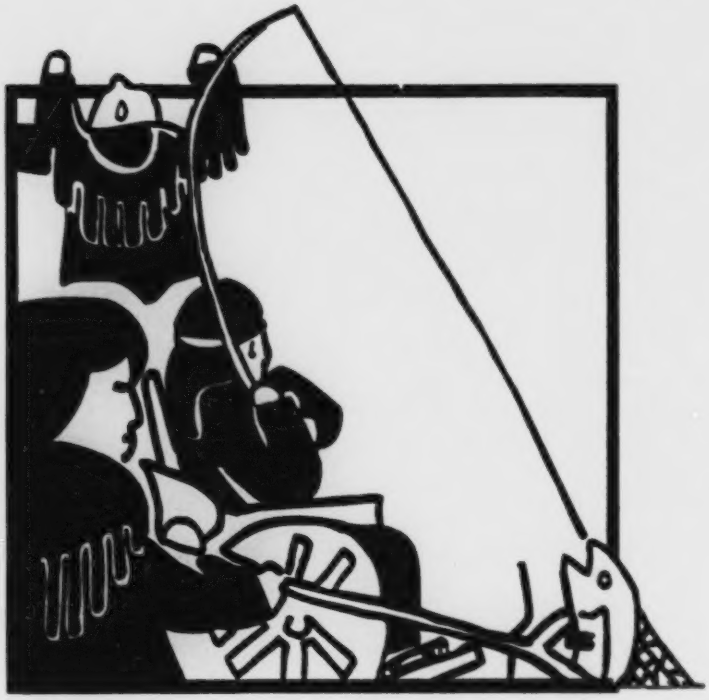
***Disability as a Mascot.** Identify and discuss an example of how the student who experiences a disability could be perceived as a "mascot".

*How do you think these children would be perceived by their peers? Are they equals? Are their peers in a teacher-helper role?

***Helper Role.** Consider what happens to the student who experiences a disability as well as the nondisabled student when the nondisabled student is always in the helper or teacher role and the student with the disability is always on the receiving end of the help.

REFLECTIVE JOURNAL

Enter your reflections and reactions from the activity and assignment in your journal. What positive elements do you believe are portrayed in the video "The Way to Go"?



Readings

Stainback, S. & Stainback, W. (1990). Inclusive schooling. In W. Stainback & S. Stainback, (Eds). Support networks for inclusive schooling: Interdependent integrated education. Baltimore: Paul H. Brookes. p. 3-24.
PUBLISHING
P.O. Box 10624
Baltimore, MD.
21285-0624

Susan Stainback
William Stainback

1

Inclusive Schooling

This chapter introduces the concept of inclusive schooling. The purpose is to provide background information and considerations requiring attention when all students are included in the mainstream of their regular neighborhood schools.

The chapter is organized around a series of questions frequently asked about inclusive schools and the integration of all students in the mainstream. The answers provided are based on information the authors have gathered from a variety of sources, including parents, students, and educators who have been involved in the development of inclusive schools.

WHAT IS AN INCLUSIVE SCHOOL?

An inclusive school is one that educates all students in the mainstream. Educating all students in the mainstream means that every student is in regular education and regular classes (Lusthaus & Forest, 1989). It also means providing all students within the mainstream appropriate educational programs that are challenging yet geared to their capabilities and needs as well as any support and assistance they and/or their teachers may need to be successful in the mainstream (Stainback & Stainback, 1988). But an inclusive school also goes beyond this. An inclusive school is a place where everyone belongs, is accepted, supports, and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met.

Portions of what is presented in this chapter are based on material in Stainback, Stainback, and Forest (1989).

Inclusive schooling is the process of carrying out the operation of supportive schools. That is, it is the process of operating a classroom or school as a supportive community where the needs of all members are met and people support and accept responsibility for each other. Inclusive schooling is related to, but different from, the movement to integrate or mainstream students with disabilities into their regular neighborhood schools. Integration and/or mainstreaming is the process of having students with disabilities (who have been excluded) become an integral part of the mainstream of their schools. Inclusive schools do not focus on how to assist any particular category of students, such as those classified as disabled, fit into the mainstream. Instead, the focus is on how to operate supportive classrooms and schools that include and meet the needs of everyone. Thus, the focus of this chapter, and the book in general, is *not* on how to mainstream or fit students into regular education classes. Rather, the focus is on how to develop regular school and classroom communities that fit, nuture, and support the educational and social needs of every student in attendance.

An inclusive school and the process of inclusive schooling is the ultimate goal of the integration and mainstreaming process. Once inclusive schooling and inclusive schools are achieved, integration and mainstreaming will no longer be necessary since there will no longer be anyone left out to be integrated or mainstreamed into regular educational settings.

It should be stressed that inclusive schooling means that all students should be included in the mainstream with appropriate programs and support to meet their individual needs. Success occurs when all students are provided appropriate educational opportunities and support. These can and should be provided in the educational mainstream.

HOW CAN INCLUSIVE SCHOOLS BE ACHIEVED?

To achieve inclusive schools, special and regular educators must come together to work to achieve the goal of effective and appropriate education for every student in the mainstream. Full inclusion does *not* mean that special educators are no longer necessary; rather, it means that special educators are needed even more to work with regular educators in teaching and facilitating challenging, supportive, and appropriate educational programs for all students. However, special educators do need to be integrated into, and in effect, become "regular or general" educators in the mainstream who have expertise in specific instructional, curricular, and assessment areas. (This is discussed in more detail at a later point in this chapter.)

The resources, knowledge base, and personnel of regular education cannot serve the needs of all students. Special education resources and personnel cannot serve all needs either. However, if special education resources are teamed with regular education resources to become an integral part of the regular education mainstream, then all students' needs are better met. In other words, students cannot be successfully integrated without integrating personnel and resources. The reason is that both research and experience have shown that the *key* to success is that the students be provided appropriate programs and educational opportunities in integrated settings (Certo, Haring, & York, 1984; Madden & Slavin, 1983; Stainback & Stainback, 1985).

Thus, it is no longer sufficient to simply advocate for access to the mainstream of school life. It is also essential to facilitate appropriate educational programs and supports for every student in the mainstream.

WHY SHOULD ALL STUDENTS BE EDUCATED IN THE MAINSTREAM?

The basic underlying purpose of educating all students in the mainstream is to provide each student the opportunity to learn to live and work with his or her peers in natural, integrated educational and community settings. Vandercook, Fleetham, Sinclair, and Tetlie (1988) noted:

> In integrated classrooms all children are enriched by having the opportunity to learn from one another, grow to care for one another, and gain the attitudes, skills, and values necessary for our communities to support the inclusion of all citizens. (p. 19)

Since the mid-1980s, the movement to include all students in regular neighborhood schools and classrooms has gained increased momentum for a number of reasons. One reason involves the benefits to the students. When provided appropriate educational programs and support in integrated settings, students tend to learn more than they do in segregated settings (Brinker & Thorpe, 1983, 1984; Madden & Slavin, 1983). Additionally, when given guidance from adults in integrated settings, students can learn to understand, respect, be sensitive to, and grow comfortable with individual differences and similarities among their peers (Voeltz, 1980, 1982). Students can also learn to interact, communicate, develop friendships, work together, and assist one another based on their individual strengths and needs (Forest, 1987; Stainback & Stainback, 1988; Strully, 1986, 1987; Vandercook et al., 1988). Finally, the 1982 report of the *Disability Rights, Education, and Defense Fund* found "that regardless of race, class, gender, type of disability, or its onset, the more time spent in integrated public school classes as children, the more people achieved educationally and occupationally as adults" (Ferguson & Asch, 1989, p. 124). Some parents intuitively know this. One parent stated:

> When she's finished with school, she'll be able to be in some sort of integrated situation. She'll have social skills she wouldn't have had and an ability to function in more complex situations than she would've been able to do if she'd stayed segregated. (Hanline & Halvorsen, 1989, p. 490)

A second reason to include all students in the mainstream is to avoid the effects of segregation inherent when students are placed in separate, special schools and/or classes. Lack of self-confidence, lack of motivation, and lack of positive expectations for achievement are all products of segregated learning environments. As Chief Justice Earl Warren noted in *Brown v. The Board of Education* (1954):

> [Separateness in education can] generate a feeling of inferiority as to [children's] status in the community that may affect their hearts and minds in a way unlikely ever to be undone. This sense of inferiority . . . affects the motivation of a child to learn . . . [and] has a tendency to retard . . . educational and mental development. (p. 493)

This concern voiced by Warren was confirmed by a statement from a student who attended separate, special classes throughout his school years. He stated:

> The only contact we had with the "normal" children was visual. We stared at each other. On those occasions, I can report my own feelings: embarrassment. . . . I can also report their feelings: YECH! We, the children in the "handicapped" class, were internalizing the "yech" message—plus a couple of others. We were in school because children go to school, but we were outcasts with no future and no expectation of one. (Massachusetts Advocacy Center, 1987, pp. 4–5)

Another student who moved from an integrated elementary class to a homogeneous, segregated class in junior high school also confirmed Warren's statement when she stated:

> I felt good when I was with my [elementary] class, but when they went and separated us that changed us. That changed our ideas, the way we thought about each other, and turned us to enemies toward each other because they said I was dumb and they were smart. (Schafer & Oleta, 1971, p. 96)

The third and perhaps most important reason to include all students in the mainstream is that it is the fair, ethical, and equitable thing to do. It deals with the value of *equality*. As was decided in *Brown v. The Board of Education* (1954), "separate is not equal." All children should be [illegible] community mainstream. It is discriminatory that some students, such as those "labeled" disabled, must earn the right to be in the regular education mainstream or have to wait for educational researchers to prove that they can profit from the mainstream, while other students are allowed unrestricted access simply because they have no label. No one should have to pass anyone's test or prove anything in a research study to live and learn in the mainstream of school and community life. This is a basic right, not something one has to earn.

2.53

Since students classified as having disabilities have constituted a major focus for exclusion from the mainstream of schools and communities, many disability rights advocates have been actively supporting the inclusive schooling movement. As one disability rights advocate has said, "From a minority group perspective, the principal change to be sought in education policy is the . . . integration of disabled students into regular classrooms" (Hahn, 1989, p. 233).

The basic premise of equality inherent in inclusive schooling was stated on the floor of the United States Senate by the former Republican senator from Connecticut, Lowell Weicker:

> Authorities on disabilities have often said, and I have quoted them on this floor before, that the history of society's formal methods of dealing with people with disabilities can be summed up in two words: SEGREGATION and INEQUALITY. Psychologist Kenneth Clark, whose testimony about the damaging effects of segregation provided pivotal evidence in the landmark case of *Brown versus the Board of Education*, stated that "segregation is the way in which a society tells a group of human beings that they are inferior to other groups of human beings in the society." As a society, we have treated people with disabilities as inferiors and made them unwelcome in many activities and opportunities generally available to other Americans. (Weicker, 1988, p. 1)

It is not comforting to think that in the past it was actually decided that some children or adults should be excluded from regular lives, classrooms, and communities. This exclusion has been justified on the basis that "it's for their own good," "they need special treatment or interventions," or "the research has not yet been completed." However, for a truly fair, egalitarian society in which all people are considered to have equal worth and equal rights, the school systems need to be reevaluated. If integration and equality for all people in society is desired, then segregation in the schools cannot be justified. Appropriate educational programs and interventions can be provided in the mainstream. Forest (1988) noted: "If we really want someone to be part of our lives, we will do what it takes to welcome that person and accommodate his or her needs" (p. 3). When a single person, who has not broken any laws, is excluded from the mainstream of school and community life, all of society becomes vulnerable.

WHAT ARE SOME PRACTICAL STRATEGIES FOR PROMOTING INCLUSIVE SCHOOLING?

There are a number of strategies that can be used to make full inclusion a reality.

Establish a School Philosophy

The first and perhaps the most important strategy is to establish a school philosophy, based on egalitarian and democratic principles, where integration is valued. Ferguson and Asch (1989) noted, "Integration is not an experiment to be tested, but a value to be followed" (p. 137). The school board and the administration, particularly the school principal, can be instrumental in establishing a philosophy that all children can learn and belong in the mainstream of school and community life. Often, however, they need the encouragement, support, and assistance of parents and educators to enable them to do so.

Follow the Principle of Natural Proportions

A second strategy is to follow the principle of natural proportions. That is, inclusive schools generally accept those students who are a natural part of their neighborhood, zone, or district from which the school draws its students. As a consequence, students who have often been excluded from their neighborhood school, such as those with severe disabilities, for example, should attend the age-appropriate, regular neighborhood school they normally would attend if they were not classified as having a disability (Brown et al., 1989).

It is difficult for those schools that serve large numbers of students with disabilities to become inclusive schools. The reason is that due to the high density of students with disabilities within the total student population, natural or normal regular class integration is almost impossible to achieve.

Include Individuals Who Are Directly Involved

The third strategy is to include in any discussions and planning for integration the people who will be directly involved, such as the students traditionally classified as having disabilities, parents, students classified as nondisabled, and teachers. Those people most directly influenced have been excluded far too long from the planning and decision-making process.

Some schools, in the process of moving toward full inclusion, have found it helpful to *establish an inclusive schooling task force* made up of teachers, parents, students, counselors, administrators, and specialists. [illegible] addition to serving as a general advocacy group for integrat[illegible]e

purpose of the task force is to help all individuals involved with the school gain a better understanding of the whys and hows of developing and maintaining an integrated, caring, and inclusive school community. To do this the task force is often charged with several duties. One is to gather background information in the form of books, articles, and videotapes on the subject. These can be recommended to and shared with school personnel, students, parents, and school board members. A special section of the school library might be designated to maintain all the materials gathered. Also, when gathering background information, key task force or other school personnel may want to visit inclusive schools in one's own or nearby school district.

A second purpose of the task force is to organize and conduct information sessions for parents and school personnel where people knowledgeable and experienced in full integration can discuss reasons and provide suggestions as to how it might be accomplished. It is important that the key people invited to share information have direct experience in full-time regular class integration. Usually a combination of parents, students, teachers, and administrators from a school system that has successfully integrated their classrooms can be more "believable" and effective than hearing only from "experts." Some schools have the same information sessions for parents, educators, students, and administrators, which involves everyone "sitting down together" rather than each group communicating only among themselves.

A third purpose of the task force is to establish an integration plan that includes specific objectives for achieving full inclusion. This plan usually includes how the resources and professional and nonprofessional personnel in "special" education can be utilized to provide reduced teacher/pupil ratios, team teachers, consultants, teacher aides, and support facilitators in the mainstream of regular education. By establishing such a task force to help achieve inclusive schooling, community members, students, and a variety of personnel within a school can become involved and take ownership and pride in achieving a fully integrated school.

Develop Networks of Support

A fourth practical strategy for achieving mainstream education is to develop networks of support. Many school personnel are finding that successful inclusion of all students necessitates more than providing one or two types of support (e.g., having a specialist and/or teacher's aide in the regular class). Instead, it often requires an array of both nonprofessional and professional supports such as buddies, friendships, and peer tutors for students; and, for teachers, professional peer collaboration, team teachers, teacher and student assistance teams, coll[illegible]ive con-

2.55

sultation, and perhaps most important, time for planning and working with others. In addition, one or more technological supports may be needed. The array of supports needed and how they can be provided are discussed in Chapter 2 and throughout this book.

Integrate Students, Personnel, and Resources

A fifth strategy is to integrate not only students, but personnel and resources as well. Including all the students from the special education class in regular education allows the special education teacher and the teacher's aide(s) in the special class to be freed and integrated into the mainstream to serve as team teachers, support facilitators, and the like. When only one or two students from a special class are included, this usually means that the special education teacher must remain in the special class to teach the students who still remain, or try to serve the dual roles of a team teacher or support facilitator in regular education and a special class teacher. This dual role can be an almost impossible task. Furthermore, when all students are included, all the resources and energy of school personnel can be spent on assessing instructional needs, adapting curriculum, and providing support to students who need it in the mainstream rather than spending valuable resources and energy on classifying, labeling, and making "placement" decisions.

While it is being suggested here that *all* the students from a special class be included in the mainstream, it is essential *not* to include large numbers of the newly assigned students into any one regular education classroom. These students should be included across several classrooms. As noted earlier in regard to having "natural proportions" of students within schools and classrooms, one or a small number of new students can be more easily absorbed into a classroom than a large group. In addition, it is important to avoid clusters of "former special education" students being perceived as a "special" group within regular education.

Adapt the Curriculum

The sixth strategy is to adapt the curriculum when needed. In inclusive schools, the focus is not exclusively on how to help students fit into the existing, standard curriculum of the school. Rather, the curriculum in the regular education class is adapted, when necessary, to meet the needs of any student for whom the standard curriculum is inappropriate. For example, while most students in a science unit on temperature may focus on learning to understand Fahrenheit and Celsius temperature scales, one student might learn to recognize and point to items that are hot and cold. That is, while all students can pursue the same basic educational goal (what is temperature) and learn together in the [illegible] activities. It may be necessary for them to

sometimes focus on and be evaluated according to specific curriculum objectives that are different. How the curriculum can be adapted is discussed in detail in Stainback and Stainback (in press).

Maintain Flexibility

The seventh and final strategy to promote inclusive schooling is to maintain flexibility. According to Vandercook, York, and Forest (1989):

> Flexibility . . . is necessary as even the most thoughtfully designed strategies and plans sometimes are not successful and need revision. False starts should be anticipated and a commitment made to ongoing problem-solving and change as needed. Initial objectives for student involvement in regular classes and the support necessary to achieve individualized objectives may need to be modified after the students actually participate in regular classes. (p. 2)

Vandercook et al. (1989) essentially recommended that educators adopt a problem-solving approach. That is, when problems occur, as they inevitably will, the best strategy is to go back to the drawing board and come up with another plan or a different way to proceed, rather than to retreat into segregated, special education classes. While in some cases retreat may be the easiest route, it is not in the long-term best interest of the students classified as having disabilities or the ultimate achievement of integrated, inclusive communities.

CAN ALL STUDENTS PARTICIPATE IN MEANINGFUL WAYS IN REGULAR EDUCATION?

A number of educators have demonstrated that students with diverse educational needs can participate and learn in meaningful ways in regular education classes (See Biklen, 1988; Discover the Possibilities, 1988; Forest, 1987; Porter, 1988; Vandercook et al., 1988). For instance, during a map reading activity, one student may be called upon to discuss the economic system of a country, another may be requested to identify a color, while another student may simply be requested to grasp and hold a corner of the map. In reading class, during oral reading activities, one student may be requested to read out loud, another listen to a story and answer questions, while another student may be asked to pick out pictures that describe the story. In inclusive, heterogeneous classrooms, what any student is requested to do to participate in a group or individualized class activity is based on what the student needs to learn and is capable of doing. Within a single math class, for example, objectives may range from grasping an object or following a one step direction to computing or analyzing a highly complex problem. Thus, when appropriately organized, regular education classes can provide a variety of

2.56

appropriate learning activities and challenges for students with a range of learning needs, interests, and capabilities.

In addition, many school personnel are finding that all types of skills can be taught within regular neighborhood schools and classrooms. For example, daily life functional skills, such as cooking, can be learned in home economics classes, and alternative communication skills using pictures or other methods can be learned in reading or language arts classes. Also, lunch and snack times in regular education can be used to develop eating and dining skills, bus riding skills can be taught when students need to travel back and forth to school or in the community, braille can be taught and practiced during reading classes, and mobility skills can be taught to students who need them when they are called upon to maneuver around the regular education classroom, school building, and playground.

Finally, it should be stressed that adapting instruction to individual differences does not mean that educational standards need to or should be lowered for any student, whether traditionally classified as retarded, normal, or gifted. Every student should be challenged to be the best he or she can be. That is, while the goals and methods of educational programs should be individualized to meet the unique needs of each student, high expectations and challenges for each student, based on his or her unique capabilities and needs, are essential to providing all students a quality education.

DO STUDENTS ALWAYS HAVE TO BE HETEROGENEOUSLY GROUPED WITHIN REGULAR EDUCATION?

Educating all students in the mainstream essentially means the heterogeneous grouping of students of similar ages in the same regular neighborhood schools, classes, programs, and activities. Experience and research have shown that there are advantages to heterogeneously grouping students (Dawson, 1987; Slavin, 1987). For instance, heterogeneous grouping can allow for shared responsibility among students and skill guidance and modeling in which peers learn from and help each other. In addition, heterogeneous grouping can offset the potential stereotyping and/or stigmatization that often results when students are frequently associated with a particular ability, disability, or achievement group, and can promote better understanding of individual differences and similarities among all students. Thus, heterogeneous grouping should occur whenever possible.

However, some students may need to be homogeneously grouped occasionally for instru[illegible]n a class or across classes according to [illegible]ies (Slavin, 1987; Stainback, [illegible]back, & Forest, 1989). For example, some students may desire or need instruction in computers, advanced physics, calculus, a foreign language, a musical instrument, gymnastics, braille, sign language, mobility orientation, or community-referenced instruction that other students either do not need or choose not to take. When such groupings occur, they should be based on the instructional needs of the students as they relate to the instructional focus of the class or grouping, rather than according to a categorical label such as retarded, normal, or gifted. Care also must be exercised to minimize such groupings to the greatest extent possible; but when they are used, they should be flexible, fluid, and short term to avoid the development of a tracking system and to allow students to move in, out, and across the groupings according to their individual needs and interests.

Robert Slavin, a well-known researcher on grouping, recommended that homogeneous grouping plans be used *only* when the following conditions can be met:

> 1. The grouping plan measurably reduces student heterogeneity *in the specific skill being taught;*
> 2. The plan is flexible enough to allow teachers to respond to misassignments and changes in student performance level after initial placement; and
> 3. Teachers actually vary their pace and level of instruction to correspond to students' levels of readiness and learning rates. (Villa & Thousand, 1988, p. 149)

Slavin (1987) stressed that, if limited grouping is necessary, students should be grouped according to their specific instructional needs and for no more than a couple of subject areas. Thus, they are allowed to spend the majority of their school day in heterogeneous groupings.

Grouping of students for instructional purposes occurs at the high school level more often than it does at the preschool or elementary school levels. In fact, many parents and professionals believe that it occurs much too frequently (Forest, 1987; Goodlad, 1984; Oakes, 1986). Even if a student cannot read, multiply, or write, it does not necessarily preclude the functionality and importance of him or her taking core regular education high school courses such as basic science, history, and literature. By allowing all students to enroll in basic core high school classes and participate, if in only small ways, they all profit from high school educational experiences designed to help them reason, think, and learn about how society and the world around them operates. Similarly, by having students with diverse characteristics in such basic information, idea developing, and sharing classes, students can share common experiences, learn to better understand what people with different perceptions think, and also have an opportu[illegible]o learn from and interact with their peers. These are all functional and necessary skills.

Although a student may not be as intellectually astute or physically adept as many of his or her classmates, he or she will still be expected to and have the right to vote, live, and recreate in, adapt and contribute to, and understand the surrounding world (Guess & Helmstetter, 1986). Thus, it is important to evaluate what learning opportunities some students miss in order to make time for teaching such things as fluency in a job or daily activities, under the guise of providing a functional curriculum, that may virtually become obsolete in the future (e.g., pumping gas, washing dishes). Some educators believe that it is essential to guard against preparing a subgroup of students for the future who share few common experiences and understandings with people they are expected to live with in the community (Goodlad, 1984; Oakes, 1986). In addition, any student's education would be incomplete without at least providing him or her an *opportunity* to be introduced to materials and discussions in history, literature, music, art, and science that promote an understanding of the world, sensitivity to the human condition, and reasoning and thinking skills during the school years. It is difficult, at best, to predict what the future might be for any student; thus, a growing number of people believe that it is a mistake to limit any student's education to learning *only* "daily life, functional" skills (Forest, 1987; Goodlad, 1984; Oakes, 1986; Stainback et al., 1989).

It should be noted that if a class is reading the novel *Red Badge of Courage*, for example, a student, who cannot read and comprehend the novel, can still participate (Baumgart et al., 1982). He or she can listen to a brief tape recorded simplified version based on the story or be told the basic or rudimentary elements and ideas through picture cards or by some other means and answer a few basic questions. Even a small understanding of the story and participation with peers can be a helpful and worthwhile learning experience.

Formerly excluded students often gained more than was anticipated when included in basic regular education classes. For instance, a student, classified as having a severe disability, surprised everyone when he was included in an eighth grade science class:

> Initially, science class was selected because the teacher was an enthusiastic individual who was very interested in involving all learners in his class. The team struggled with how science related to a functional, life space domain curriculum but went ahead with the plans to include the learner in the science class anyway. After several weeks in the class, it became apparent that the student enjoyed the science subject area. His spoken vocabulary increased dramatically to include science jargon including e.g., "rocks," "rivers," "stars." (York & Vandercook, 1989, p. 16)

Increasing one's vocabulary is certainly functional. Thus, it is important not to assume that formerly excluded students will fail to benefit from regular education classes.

In short, while teaching floor sweeping, dish washing, grocery shopping, bus riding, vocational, and other skills is important, it is essential not to overlook the other side of any person, that is, the more intellectual and human side. All students—including those traditionally classified as having severe, profound, and multiple disabilities—need to be provided *opportunities* to think, reason, and make moral and ethical decisions; become sensitive to the needs of others; appreciate art, music, and poetry; and understand the world in which they live. In addition, all students need to share common experiences together so that they can gain a better understanding of one another and learn to live and function together in an integrated society. When subgroups of students are provided an almost totally different curriculum throughout their school years, there is a real danger they will have little in common and little understanding of each other later in life.

IS THERE EVER A NEED FOR SPECIAL EDUCATION?

The personnel, curriculum, and methods in special education are definitely needed to provide all students educational and related services that meet their individual needs. However, in truly integrated schools they, too, need to be integrated into regular education and become "regular" education personnel, curriculum, and methods.

The reason for changing from the special to the regular label is that the terminology used to describe personnel and programs as well as students is important to achieving truly integrated schools. Will (1986) stated, "The terminology we use in describing our educational system is full of the language of separation, of fragmentation, of removal" (p. 412). For example, at present, students, educators, and programs are separated and fragmented by labeling some "special" and others "regular." Even when everyone is physically placed in the mainstream, separation still occurs on a psychological level in the minds of students, teachers, and parents.

This psychological separation can be avoided. All students can be viewed simply as students, each with his or her own unique characteristics, rather than viewing some with "special needs" and others with "regular needs." All classrooms and programs can be referred to by their function or instructional focus. For example, Ford and Davern (1989) changed a high school special education classroom into an apprenticeship center or classroom. All students, whether classified disabled or

2.58

nondisabled, who were engaged in community-based, work-study, supported employment, or cooperative education type programs, used the classroom as a place to receive instructions, gather belongings, and prepare for community outings. Finally, all educators can be referred to as regular educators or just simply educators rather than some being "special" educators. To accomplish this, special educators can become educators with expertise in, for example, community-referenced instruction, supported employment, school administration, behavior management, braille, learning strategies, and/or support facilitation.

There is more to integration than just physical proximity. Integration on a psychological level in the minds of everyone is also important to achieve a sense of oneness or community, where everyone belongs and is a natural and integral part of the mainstream.

IS IT REALLY POSSIBLE TO EDUCATE ALL STUDENTS IN THE MAINSTREAM?

Students display a range of physical, intellectual, and psychological characteristics. No one denies this. Yet, the school's response to individual differences need not be to classify, label, and/or segregate. If educators want to, it is possible to organize the mainstream of schools to appreciate and celebrate differences.

If a child fails to be successful in the mainstream, whose fault is it? Walter Lippmann said more than a half century ago:

> If a child fails in school and then fails in life, the schools cannot sit back and say: you see how accurately I predicted this. Unless we are to admit that education is essentially impotent, we have to throw back the child's failure at the school, and describe it as a failure not by the child but by the schools. (quoted in Block & Dworkin, 1976, p. 17)

After extensive research on effective schools, Edmonds (1979) stated:

> We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven't done it so far. (p. 29)

This, of course, will require the identification of appropriate but challenging goals for each child in the mainstream rather than requiring them all to learn the exact same thing or always be at the same level of proficiency. It also will require that support and assistance be provided, when necessary. This can be done if the will to do so exists.

Some parents and educators have said that they thought it may be possible. Growing numbers of people are now convinced that it can be done given that the *mainstream is sensitive to individual differenc[illegible] and teachers and students are provided adequate support and assistance*. The reason is that it is beginning to be done successfully in some schools in the U.S., Canada, Italy, and a number of other countries (Berrigan, 1988; Biklen, 1988; Blackman & Peterson, 1989; Forest, 1988; Porter, 1988; Schattman, 1988; Villa & Thousand, 1988; York & Vandercook, 1989).

However, it will be difficult to achieve widespread success if society is unwilling to: 1) provide each student the support necessary for him or her to be in the mainstream, and 2) adapt and adjust, when necessary, the mainstream to accommodate all students. Thus, the key is the *willingness* to visualize, work for, and achieve a mainstream that is adaptive and supportive of everyone.

It should be emphasized that saying it can be done is not the same as saying it will be easy. Segregation has been practiced for centuries, and there are entrenched attitudes, laws, policies, and educational structures that work against achieving full inclusion of all students on a widespread basis. In addition, because a second system of education (i.e., "special" education) has operated for so long, many schools unfortunately do not know at the present time how to adapt and modify the curriculum and instructional programs to meet diverse student needs, deal with behavioral difficulties, and/or provide the tools, techniques, and supports some students need to be successful in the mainstream. Thus, achieving full inclusion of all students is likely to be a challenging undertaking. However, the goal of having inclusive schools where everyone belongs, has friends, and is provided appropriate educational programs and supports is far too important not to accept the challenge.

Finally, the best way to learn how to make full inclusion a reality is to establish integrated schools and classrooms and work every day within these "real" world integrated settings to find solutions to problems. People in school systems that are doing this are sometimes experiencing frustration and roadblocks; however, most are not giving up. Instead, they are finding that by going back to the drawing board and gradually coming up with ways to overcome barriers, they are creating educational structures and opportunities that benefit everyone.

CAN FULL INTEGRATION BE ACHIEVED WITHOUT SACRIFICING PEOPLE'S DEVELOPMENT OF A SELF-IDENTITY?

Many people identify with others with whom they share a common characteristic, concern, or interest (e.g., physical characteristic, religion, cultural background). This self-identity or sense of self influences a student's confidence and feelings of worth, which, in turn, impacts the way he or she interacts with the environment. As with many other groups, developing a positive self-identity that includes one's disabil[illegible] a particularly important consideration for individuals with disabilities (Hahn, 1989) and needs to be incorporated into the integration movement. Ferguson and Asch (1989) described the issue as follows:

> How do disabled people come to think of themselves in ways that incorporate their disability as an important part of their personal and social identity? It is a theme that complicates the call for educational integration. In both the literature and our personal reflections we find an undeniable recognition that a well-developed sense of identity as a disabled adult needs some significant involvement as a child with other people (children and adults) who have similar disabilities. (p. 131)

While this is an important factor to consider, most people also believe it is essential to work for and foster an integrated society and integrated schools where everyone can learn to live and work together and care about each other. The authors believe that this can be done without trampling on the rights of any person or group to identify with or freely form friendships and bonds with whomever they choose. The key here is free choice. For example, if people who share a common characteristic (e.g., deafness) want to bond together, that is their personal choice. However, one should never impose the arbitrary homogeneous clustering together of people perceived as having a common characteristic(s) in segregated settings, such as group homes for individuals with mental retardation; schools or classes for students who are black, non-English speaking, gifted, or deaf; or scout troops for those with handicaps and for those without handicaps.

In educational organizational structures, the prearranged homogeneous grouping or clustering of individuals based on a common characteristic is inappropriate for moral reasons involving equality. Such grouping is also less than optimal for learning to live, work, and care about one another in integrated communities. However, when integrated classrooms are organized in the schools, often individuals with certain characteristics that have relatively low incidence in the general population, such as blindness, deafness, or spina bifida, often do not have the *opportunity* to get to know and interact with other children and adults who have similar characteristics, interests, or backgrounds. Thus, *purposeful access* (i.e., planned opportunities) for people who share common characteristics with one another to gather through the availability of *support or interest groups* can be a worthwhile and desirable practice. For instance, Adrienne Asch, a colleague who is blind, clearly pointed out that while it was important for her educational and social development that she attend regular neighborhood public school classes, being able to have some opportunity to "compare notes" and share experiences with peers who were also blind was helpful to her. She stated:

259

> We talked about how our parents, teachers, and the kids in our schools treated us because we were blind. Sometimes someone who solved a problem told the rest of us what she or he figured out. Sometimes we complained together about those problems none of us had managed to solve. It was important to compare notes, have solid friendships where sight or lack of it did not affect the terms of the interaction, and just in general not feel alone. (Ferguson & Asch, 1989, pp. 132–133)

Similarly, there has been much emphasis since the mid-1980s on the importance of students who are deaf getting to know others who are deaf and being introduced to the culture of the deaf (Padden & Humphries, 1988). In addition, benefits of formal and informal support or common interest groups have been cited for other areas, such as students of divorced parents, victims of abuse or rape, future farmers of America, religious youth groups, wheelchair sports, teenage girls, and so on. Although such experiences may be needed, they can be gained while maintaining integrated schools and classrooms through after-school, weekend, and summer social clubs and groups. In rural or sparsely populated areas it may be necessary to form regional advocacy groups, social clubs, or other activities. An important element of such access groups is that their membership and participation should not be imposed (individuals can choose or not choose to participate).

Care must be exercised to ensure that any organized grouping of people does not violate their interests, needs, and basic rights. There is a hazard that people in authority, including educators and parents, might focus on any one of a child's characteristics (e.g., disability, race, religion) and organize his or her life around that characteristic. Parents encouraging their children with disabilities to have only friends who have disabilities and to participate in social events for people with disabilities just perpetuates the well-intentioned segregation of years past (Strully & Strully, 1985).

As previously noted, homogeneous group activities should be voluntary, but also, encouragement should be based on an individual's unique needs and interests, not what others consider to be an individual's identifying characteristic (e.g., blindness, deafness). In an investigation of a work situation in which adults who were classified as mentally retarded were learning job skills, a number of the staff expressed concern about the interactions of one young woman. The woman chose to socially interact with the staff rather than her peers who were also classified as mentally retarded. When asked, the woman explained, "I am normal inside and I can't seem to get that out" (Kauffman, 1984, p. 89). The point is that everyone is "normal inside," and each person chooses different talents, characteristics, and interests to

2.60

develop his or her sense of personal identity and friendships. Each person should have the right and be encouraged to define and nurture his or her identity in any positive way that he or she chooses, whether it be by sex, physical or mental characteristics, abilities, race, religion, cultural heritage, interests, and/or any combination thereof, while maintaining an awareness of his or her membership in and responsibility for a larger group of human beings. That is, if a group of individuals who share the common characteristic of being deaf or black or female or Catholic want to get together, share experiences, or form an advocacy group, that is their personal choice, but it should never be mandatory.

In addition to sharing or identifying with common characteristics through support or interest groups, purposeful access should occur in terms of *representation and role models* available in schools. Having people with varying characteristics as administrators, teachers, and other school personnel is an important factor to consider for quality inclusive education. For instance, having a school principal who is nonambulatory can not only set a positive role model for both ambulatory and nonambulatory students but will also assure representation of the access needs for wheelchairs in the school's decision making. Thus, including students with all types of characteristics in integrated schools will likewise require having educators and other personnel with various characteristics, including those who are deaf, black, female, blind, and so on, operating the schools. This is important not only to help all students to develop a positive self-image but also for more inclusive representation of the diverse needs among individuals and positive role models within the schools.

CONCLUSION

An inclusive school is one that educates all students in the mainstream. However, educating all students in the mainstream does *not* mean merely "dumping" students into regular education classes. It also does *not* mean that all students will necessarily have to achieve the same educational objectives and/or utilize the same methods to learn. It does mean including all students in a mainstream that is sensitive, flexible, and adaptive to unique needs where all students can receive whatever support and assistance they may need to fulfill their potential and develop friendships with their peers.

Few people—whether classified as disabled, nondisabled, or with any other label—want to be in a mainstream that does not meet their needs or does not make them feel welcome or secure. In fact, when [illegible] some of them will say that they are hesitant and unsure because they see the mainstream as a place where their needs may not be met and where they may feel unwelcome and uncomfortable. Some parents agree with their children. Thus, if an integrated society is desired, it is essential that the mainstream be adaptive and sensitive to the unique needs of all students and that positive peer relationships and friendships be fostered for all students so they will feel welcome and secure.

Experience has shown that it is possible to have a mainstream that meets everyone's needs *if* ample support and assistance is provided to both teachers and students in regular education classes. Throughout this book, parents who have been involved with the inclusive schooling movement and educators experienced in educating a diversity of students in the mainstream outline and discuss some of the major supports needed and how such supports can be provided.

REFERENCES

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of The Association for Persons with Severe Handicaps, 7,* 17–27.

Berrigan, C. (1988, February). Integration in Italy: A dynamic movement. *TASH Newsletter,* pp. 6–7.

Biklen, D. (Producer). (1988). *Regular lives* [Video tape]. Washington, DC: State of the Art.

Blackman, H., & Peterson, D. (Eds.). (1989). *Totally integrated neighborhood schools.* LaGrange, IL: LaGrange Department of Special Education.

Block, N., & Dworkin, G. (Eds.). (1976). *The I.Q. controversy.* New York: Random House.

Brinker, R., & Thorpe, M. (1983). *Evaluation of integration of severely handicapped students in regular classrooms and community settings.* Princeton, NJ: Educational Testing Service.

Brinker, R., & Thorpe, M. (1984). Integration of severely handicapped students and the proportion of IEP objectives achieved. *Exceptional Children, 51,* 168–175.

Brown, v. The Board of Education of Topeka. 347 U.S. 483, 493 (1954).

Brown, L., Long, E., Udvari-Solner, A., Davis, L., VanDeventer, P., Ahlgren, C., Johnson, F., Grenewald, L., & Jorgenson, J. (1989). The home school. *Journal of The Association for Persons with Severe Handicaps, 14,* 1–7.

Certo, N., Haring, N., & York, R. (Eds.). (1984). *Public school integration of severely handicapped students.* Baltimore: Paul H. Brookes Publishing Co.

Dawson, M. (1987). Beyond ability grouping. *School Psychology Review, 16,* 348–369.

Discover the Possibilities. (1988). Colorado Springs, CO: PEAK Parent Center.

Edmonds, R. (1979). Some schools work and more can. *Social Policy, 9*(5), 25–29.

Ferguson, P., & Asch, A. (1989). Lessons from life: Personal and parental perspectives on school, childhood, and disability. In D. Bik[illegible], Ford, &

D. Ferguson (Eds.), *Disability and society* (pp. 108–140). Chicago: National Society for the Study of Education.

Ford, A., & Davern, L. (1989). Moving forward with school integration. In R. Gaylord-Ross (Ed.), *Integration strategies for students with handicaps* (pp. 11–13). Baltimore: Paul H. Brookes Publishing Co.

Forest, M. (1987). *More education integration*. Downsview, Ontario: G. Allan Roeher Institute.

Forest, M. (1988). Full inclusion is possible. *IMPACT, 1*, 3–4.

Goodlad, J. (1984). *A place called school*. New York: McGraw-Hill.

Guess, D., & Helmstetter, E. (1986). Skill cluster instruction and the individualized curriculum sequencing model. In R. Horner, L. Meyer, & H. Fredricks (Eds.), *Education of learners with severe handicaps* (pp. 221–248). Baltimore: Paul H. Brookes Publishing Co.

Hahn, H. (1989). The politics of special education. In D. Lipsky & A. Gartner (Eds.), *Beyond special education* (pp. 225–241). Baltimore: Paul H. Brookes Publishing Co.

Hanline, M., & Halvorsen, A. (1989). Parent perceptions of the integration transition process: Overcoming artificial barriers. *Exceptional Children, 55*, 487–493.

Kauffman, S. (1984). Friendship, coping systems and community adjustment of mildly retarded adults. In R. Edgerton (Ed.), *Lines in process* (pp. 73–92). Washington, DC: American Association for Mental Deficiency.

Lusthaus, E., & Forest, M. (1989). Promoting educational equality for all students. In S. Stainback, W. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of regular education* (pp. 43–57). Baltimore: Paul H. Brookes Publishing Co.

Madden, N., & Slavin, R. (1983). Mainstreaming students with mild academic handicaps: Academic and social outcomes. *Review of Educational Research, 53*, 519–569.

Massachusetts Advocacy Center. (1987). *Out of the mainstream*. Boston: Author.

Oakes, J. (1986). *Keeping tracking: How schools structure inequality*. New Haven, CT: County Office of Education.

Padden, C., & Humphries, T. (1988). *Deaf in American: Voices from a culture*. Cambridge, MA: Harvard University Press.

Porter, G. (Producer). (1988). *A chance to belong* [Video tape]. Downsview, Ontario: Canadian Association for Community Living.

Schafer, W., & Olexa, C. (1971). *Tracking and opportunity*. Scranton, PA: Chandler.

Schattman, R. (1988). Integrated education and organizational change. *IMPACT, 1*, 8–9.

Slavin, R. (1987). Ability grouping and student achievement in elementary school: A best-evidence synthesis. *Review of Educational Research, 57*, 293–336.

Stainback, S., & Stainback, W. (1985). *Integration of students with severe handicaps into regular schools*. Reston, VA: Council for Exceptional Children.

Stainback, S., & Stainback, W. (1988). Educating all students with severe disabilities in regular classes. *Teaching Exceptional Children, 21*, 16–19.

Stainback, S., Stainback, W., & Forest, M. (Eds.). (1989). *Educating all students in the mainstream of regular education*. Baltimore: Paul H. Brookes Publishing Co.

Stainback, W., & Stainback, S. (in press). Meeting the curriculum needs of mainstreamed students with severe intellectual disabilities. *Teaching Exceptional Children*.

261

Strully, J. (1986, November). *Our children and the regular education classroom: Or why settle for anything less than the best?* Paper presented at the 13th annual conference of The Association for Persons with Severe Handicaps, San Francisco.

Strully, J. (1987, October). *What's really important in life anyway? Parents sharing the vision*. Paper presented at the 14th annual conference of The Association for Persons with Severe Handicaps, Chicago.

Strully, J., & Strully, C. (1985). Friendship and our children. *Journal of The Association for Persons with Severe Handicaps, 10*, 224–227.

Vandercook, T., Fleetham, D., Sinclair, S., & Tetlie, R. (1988). Cath, Jess, Jules, and Ames . . . A story of friendship. *IMPACT, 2*, 18–19.

Vandercook, T., York, J., & Forest, M. (1989). *MAPS: A strategy for building a vision*. Minneapolis: Institute on Community Integration.

Villa, R., & Thousand, J. (1988). Enhancing success in heterogeneous classrooms and schools: The power of partnership. *Teacher Education and Special Education, 11*, 144–153.

Voeltz, L. (1980). Children's attitudes toward handicapped peers. *American Journal of Mental Deficiency, 84*, 455–464.

Voeltz, L. (1982). Effects of structured interactions with severely handicapped peers on children's attitudes. *American Journal of Mental Deficiency, 86*, 380–390.

Weicker, L. (1988, July). On the Americans with Disability Act. *D.C. Update*, p. 1.

Will, M. (1986). *Educating students with learning problems: A shared responsibility*. Washington, DC: U.S. Department of Education, Office of Special Education and Rehabilitation Services.

York, J., & Vandercook, T. (1989). *Strategies for achieving an integrated education for middle school aged learners with severe disabilities*. Minneapolis: Institution on Community Integration.

Stainback, S. & Stainback, W. (1990). Facilitating support networks. In W. Stainback & S. Stainback (Eds). Support networks for inclusive schooling: Interdependent integrated education. Baltimore: Paul H. Brookes. P. 25-36
PO BOX 10624
BALTIMORE MD 21285-0624

Susan Stainback
William Stainback

2

Facilitating Support Networks

In general, most professionals, parents, and advocates agree with the social justice and philosophical tenets underlying the movement to educate all students in the mainstream of regular education; however, there have been some major implementation problems encountered. Regular education teachers are being faced with the job of providing students, who have increasingly diverse educational needs, an appropriate education. Unfortunately, too often teachers do not have the time, assistance, resources, or expertise to deal with this added responsibility. Likewise, students are being included in regular classrooms with existing peer social groups and friendship patterns that are unfamiliar to them, and as a result, they sometimes feel unsure and unwelcomed. While "special" education teachers, resource room teachers, and consultants often try to help these teachers and students, they also are generally responsible for a full work load in what is known as special education and cannot devote the time to provide the degree of support needed. Thus, because of the way schools are organized, the potential benefits of all students being in the mainstream are not being realized in some cases.

Since the basic goal of inclusive schooling is desirable for a number of reasons, a major task facing educators is to determine ways to make it work. The purpose of this chapter is to examine ways to make inclusive

---

Appreciation is extended to Kathleen Harris, California State University, Los Angeles, for her critical reading and contributions to this chapter.

2.64

schooling successful by building a support network for teachers and students in regular schools and classrooms.

OVERCOMING THE BARRIERS

A range of supports are needed for teachers and students to reach several goals. These goals include:

1. Meeting the unique educational objectives and curriculum and instructional needs of *all* students within inclusive general education classes
2. Helping all students feel welcome and secure in the educational mainstream through the development of friendships and/or peer supports
3. Challenging every student to go as fast and far as possible in fulfilling his or her unique potential
4. Developing and maintaining a positive classroom atmosphere that is conducive to learning for all students
5. Arranging the physical and organizational characteristics of the classroom to accommodate the unique needs of each student
6. Providing every student any ancillary services he or she might need, such as physical, occupational, or speech therapy, or instruction in braille, sign language (and peers and teachers who know sign language), English as a second language, mobility and orientation, voice synthesizers, and so forth

In order to address these goals a number of changes need to take place in the schools. A smaller pupil/teacher ratio through such methods as team teaching will be required to make a teacher's task of meeting the needs of all students possible. Furthermore, considerable resources and expertise in a range of curricular areas and classroom management need to be available within regular education to provide assistance and support. Finally, time for teachers to meet to problem solve and to assist and support one another in daily classroom activities is required to promote the confidence and information sharing necessary to develop successful inclusive classrooms. While these goals are difficult to realize in some regular neighborhood schools, with the development and maintenance of a strong *support network*, these goals

SUPPORT NETWORKING

What is Support Networking?

There is growing recognition that no single type of support can provide the range of assistance needed by both teachers and students in inclusive classrooms. Generally, there is a need to interweave a network of varying supports into a comprehensive and coordinated system of supports (Stainback, Stainback, & Forest, 1989; Stainback, Stainback, & Harris, 1989).

In support networking, the types of supports being recognized as helpful to teachers and students in inclusive classrooms have expanded considerably since the mid-1980s. For instance, support is being provided by involving a variety of educators, specialists, students, parents, administrators, and community members on a volunteer or paid basis to give assistance and/or suggestions through informal and formal consultation, collaboration, and various integration task forces or teams (Forest, 1987; Fuchs & Fuchs, 1988; Haydek, 1987; Idol, Paolucci-Whitcomb, & Nevin, 1986). There is also a growing interest in providing support through cooperative learning activities, peer tutoring, volunteers from the community, buddy systems, and/or friendship development (Falvey, 1989; Grenot-Scheyer, Coots, & Falvey, 1989; Sapon-Shevin, 1987). In fact, attention has focused on encouraging informal nonprofessional support in the form of friendships and the like as well as professional support from specialists and teachers (Perske & Perske, 1988; Stainback et al., 1989; Vandercook & York, 1988). All of these supports, when used in a coordinated fashion with physical and technological supports such as ramps, wide aisles, auditory direction and safety signs, computers, voice synthesizers, and/or braille typewriters can provide a comprehensive *support network* for teachers and students in regular classrooms to make the goals of the inclusive schooling movement a reality.

Purpose of Support Networking

The primary purpose of support networking is to promote inclusive schooling. As noted in Chapter 1 of this volume, inclusive schooling involves the development of a classroom and school in a supportive community, a community where the needs of all members are met and people care about and support each other. Wilkinson (1980) described a supportive community as follows: ". . . people are interdependent, everyone has a function and everyone has a role to play, and that's what keeps people together and forms a [supportive] community" (p. 452). Thus, the purpose of support networking is to develop neighborhood schools and classrooms into places where everyone belongs, is accepted, supports, and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met.

Assumptions of Support Networking

1. Support networking is based on the premise that everyone has capabilities, strengths, gifts, and talents, including students classified as having disabilities, that they can use to provide support and assistance to their fellow community members.
2. In support networking, all people are involved in helping and supporting one another in both formal and informal support arrangements. Relationships are reciprocal, rather than some people always serving as helpers and others always being helped.
3. Natural supportive relationships in which individuals support one another as peers, friends, or colleagues are as important as providing professional support. A focus on natural supports helps connect people together in classrooms and schools and thus fosters supportive communities.
4. Individuals are unique and differ in what they require, and their needs often change over time. Thus, any supports inherent in support networking should *not* be based on a predefined, ironclad list of support options that cannot be modified.
5. Support networking works best in integrated, heterogeneous classrooms and schools. The diversity inherent among the members increases the likelihood that all class and school members, including students, teachers, parents, specialists, administrators, and other school personnel, will have the assets and resources necessary to support the needs of and become interdependent with each other.

Operational Considerations of Support Networking

1. Supports should be consumer driven. That is, the focus should be on what the consumer (the person receiving support) wants and needs as stated by the consumer (or if the person is very young or unable to communicate, his or her advocate should state what the consumer wants and needs).
2. Supports used should focus on empowering a person to assist him- or herself and others. This includes empowering a person to seek assistance when required and provide assistance to others.
3. School personnel in administrative or decision-making situations need to not only provide opportunities for informal support devel-

when possible, empower and encourage people to provide support to each other.

4. Support networking should be a natural and ongoing part of the school and classroom community. It should not be episodic or reserved only in times of difficulty or crisis.
5. Support networking should be run by insiders (i.e., those individuals directly involved in the school and classroom community). This may include students, teachers, secretaries, administrators, parents, specialists, and other school personnel and community volunteers.
6. Support networking is for everybody. Plans that focus on and operate for a single student or teacher generally are inefficient in promoting and maintaining the development and operation of an inclusive supportive community.
7. Support networking starts with an examination of the social interactions and supportive characteristics that naturally operate in regular classrooms and school settings and builds upon these.
8. An inherent danger in providing some types of support is that, if done incorrectly, it can make the person unnecessarily dependent upon the support. For example, if someone helps a particular student find his or her way to the school cafeteria, without at the same time helping the student learn the route and the skills necessary to do it alone, then that student may never learn to travel to the cafeteria independently. Thus, it is critical in supportive classroom communities that everyone understand that the goal is to provide support to others whenever it is needed but in the process of doing so always work to empower people to assist and support themselves and others.

Interweaving Informal and Formal Supports

The fundamental purpose behind support networking is to develop classrooms and schools into supportive communities where people support each other in natural ways. This does not mean that only informal supports available within a classroom are necessary. Formal professional resources and supports available from the school and community are also essential. Formal professional supports are often required to provide the expertise to ensure that the educational needs of each student are being met. For instance, there are some types of assistance and help that teachers and students may need that can best be provided in the mainstream by a professional or specialist (e.g., braille instruction). Thus, it will take a well coordinated network of informal and formal supports to

2.66

HOW CAN SUPPORT NETWORKING BE FACILITATED?

The informal and formal supports needed to operate inclusive classrooms that are responsive to the needs of all students can be facilitated by phasing out special schools and classrooms. Special educators can become regular classroom teachers, team teachers, resource and consulting specialists, and facilitators of support networks within regular education. In addition, the wealth of materials, procedures, supports, equipment, and resources in special education can be integrated into regular education.

There are literally billions of dollars being spent and hundreds of thousands of personnel working in segregated special education programs. All of these dollars and personnel can and should be integrated into the educational mainstream to facilitate support networking and whatever else is needed to achieve inclusive schools. Schenkat (1988) estimated that $20–$25 billion is being spent annually in special education. This money could provide considerable support and assistance for the establishment of inclusive schools and support networking for teachers and students in the mainstream. Reynolds (1989) estimated that:

> One teacher out of eight in the United States is employed in special education. If we add the school psychologists, school social workers, occupational therapists, and other professional personnel who work mainly . . . [in special education] . . . we come to a total of about 400,000 professional employees in U.S. schools—about one-sixth of the total number of professional school employees. (p. x)

In the remainder of this chapter, the emerging role of support facilitators (that is, facilitators of comprehensive and coordinated support networks) is discussed. The authors' provide a rationale for support facilitators, outline the emerging support facilitator role, delineate some skills needed to carry out the role, and discuss possible pitfalls of using support facilitators.

RATIONALE FOR SUPPORT FACILITATORS

While there are many individuals within a school who can provide support to each other (e.g., teachers, specialists, aides, students), there is no individual responsible for facilitating supportive relationships and/or other supports that may be needed. As the supportive roles are recognized and developed, there is a need for personnel knowledgeable in the facilitation of supportive relationships to work with regular classroom teachers and students to organize, coordinate, and promote the variety of supports needed. This role could be assumed by former spe[illegible]ducators, consultants, supervisors, or other educators interested in assisting classroom teachers to coordinate support networking.

THE SUPPORT FACILITATOR ROLE

The support facilitator's role can be defined as carrying out a three step process. The first step is identifying with regular classroom teachers and students the types of informal supportive relationships and/or professional supports they would like to have. This includes discussing with and helping teachers and students become aware of the various support options available. The second step is collaborating with teachers and students in determining those supports they would like in their classroom. During these two steps, the support facilitator should listen to and help clarify the perceptions of the teachers and students and *jointly* identify with the teachers and students possible supports. The process of jointly gathering information, defining the problem to be addressed, and identifying supports is fundamental to the third step, which is assisting in organizing and implementing those supports deemed most likely to be appropriate or worthwhile. It is important that teachers and students be inherently involved in the selection, development, and implementation of the supports since ownership of the support(s) by teachers and students is essential for a collaborative venture to work (Conoley & Conoley, 1982; Idol-Maestas, Nevin, & Paolucci-Whitcomb, 1984; Schowengerdt, Fine, & Poggio, 1976).

It should be noted here that "collaboration" means that the support facilitator, teacher, students, and other school personnel work together cooperatively with no one assuming an expert, supervisory, or evaluator role. At any given time any person may assume leadership or be the giver or receiver of information. It depends on who has the expertise at the given time or in a particular situation. Nevin, Thousand, Paolucci-Whitcomb, and Villa (1989) noted:

> The collaborative process is multi-directional, since all members are considered to have unique and needed expertise. At any point in time a member of the collaborative relationship may be the giver or receiver of consultation . . . [or] any member of a group may become a leader by taking actions that help the group complete its task and maintain effective collaborative relationships. (p. 21)

While the authors discuss support facilitation skills and what a support facilitator often does in the following section, it should be kept in mind that the support facilitator is not the only one who has such skills or who may be involved in carrying out some of the tasks discussed.

SUPPORT FACILITATION SKILLS

The skills needed by the support facilitator are similar to those skills needed by educational consultants, which include providing technical assistance, coordinating programs, and communicating with other professionals, parents, and students (Goldstein & Sorcher, 1974; also see Harris, Chapter 9, this volume). However, the difference between the support facilitator and the educational consultant lies in the nature of the technical assistance provided. The technical assistance provided by the educational consultant is based on the premise that the educational consultant has acquired mastery of the educational process (i.e., assessment, planning, implementation, and evaluation) appropriate for mainstream settings (Heron & Harris, 1987; Idol et al., 1986; Idol-Maestas, 1983; Rosenfield, 1987). The technical assistance provided by the support facilitator is based on the premise that the support facilitator knows the structure, how to implement, and the effectiveness of various support options, is informed regarding the availability of support options, and is able to assist teachers and students in selecting the most appropriate option(s) for a given situation. The educational consultant provides support to teachers and students to enhance the instruction of students, while the support facilitator develops a network of supports to enhance the educational success and friendships of students. One support in that network may be the educational consultant.

This implies that there are a number of skills needed to effectively carry out the duties of a support facilitator. First, if a support facilitator is to be of help to teachers and students, he or she needs a *working knowledge of the support models and resources available* that can be utilized to facilitate support networks to provide needed assistance in the mainstream. This involves an understanding of and how to informally facilitate natural supportive relationships among students, teachers, and others, as well as how to effectively use such support models as professional peer collaboration (Pugach & Johnson, 1987) and/or the McGill action planning system (Forest, 1987), as well as those individuals who might be available and willing to participate in these support options or models in a school or school district.

Assessing and matching the needs of students and teachers to applicable support options and resources available is another skill needed to carry out the job of a support facilitator. As in any position that provides support, determining what assistance is required is a critical initial step. To do this, the support facilitator needs experience in and knowledge of regular classroom curriculum, methodology, and programs, and the ability to listen to what support regular classroom teachers and students be-

(1988) and Pugach (1988) have pointed out that former special educators working in regular classes must be careful not to assume that they know more about regular classroom problems than regular educators and students in regular classrooms.

Once the needs of a teacher and/or student are determined, a support facilitator needs to work collaboratively with the classroom teacher and students to *organize and operationalize those supports and resources deemed necessary*. The responsibility of a support facilitator to encourage supportive relationships among students and teachers and to help a variety of support people (e.g., vision or hearing specialists) work within predefined schedules, duties, and classroom structures makes the need for organizational skills essential. That is, the support facilitator is called upon not only to organize his or her own activities (e.g., as a team teacher) but also promote supportive relationships and the support activities of others.

Once supports are organized and put into operation, a support facilitator may act as a mediator or catalyst to *promote communication and collaboration among those involved*. Heron and Harris (1987) and Idol et al. (1986) noted that this involves helping others to exhibit behaviors such as sharing information, being a good listener, showing mutual respect, giving and receiving feedback, and employing situational leadership. Inherent in the support facilitator role as a collaborator is facilitating shared responsibility, knowledge, and skills among those involved rather than assuming a supervisory or evaluator role (Friend, 1988).

In summary, special educators can join regular education, become regular educators, and serve as support facilitators in the mainstream. They can be involved in such tasks as locating specialists, team teaching, and/or helping with the organization of assistance teams for teachers; and for students, they can be involved in facilitating peer tutoring, friendship development, and cooperative learning activities. As support facilitators, they can interweave a network of varying supports into a comprehensive and coordinated support system.

POSSIBLE PITFALLS OF USING SUPPORT FACILITATORS

When facilitators were first used in the schools, they were generally employed to work only with students classified as having disabilities. They often followed or shadowed these students around in regular class and school settings. This tended to draw attention to and set such students apart from their peers, interfering with the development of natural networks of supports or friendships. That is, since the student needing assistance always had an adult to assist him or her, natural peer support networks and friendships seldom developed, even when they were en-

2.68

couraged or facilitated by the teacher or support facilitator. Thus, since the mid-1980s, support facilitators have served a broader role. In addition to facilitating networks of support among students, teachers, and others, as team teachers, they often help teachers adapt instruction to meet the needs of a variety of different students and/or directly assist any student, classified disabled or not, who is having difficulty in educational tasks and/or in gaining peer acceptance. Support facilitators are also sensitive about when to help any particular student and when to encourage and allow natural peer supports and friendships an opportunity to develop. It should be stressed that there has been an increased emphasis since the mid-1980s on support facilitators helping classrooms and schools become caring communities that include and support *all* students, rather than focusing on providing support for any particular student or helping him or her "fit into the mainstream."

Finally, it is crucial that support facilitators *not* provide support when it is not needed or be overprotective. The support facilitator also should be viewed as a team teacher, resource, or support person and should *not* assume the role of any particular student's personal teacher in the regular classroom. The teacher maintains responsibility for the education of all the students in the class. The support facilitator acts as a resource to the teacher, family, principal, and the class as a whole in building support networks.

CONCLUSION

Increasing numbers of "special" educators are beginning to informally assume the role of support facilitators as they work as team teachers, consultants, collaborators, and/or resource personnel in regular education classrooms. In this chapter, the authors have tried to provide a rationale for and structure to this emerging role. There is a need for greater awareness, discussion, and study of the support facilitation role so that it does not evolve haphazardly, but rather evolves with forethought, planning, and research.

REFERENCES

Conoley, J., & Conoley, C. (1982). *School consultation*. Elmsford, NY: Pergamon Press.

Falvey, M. (1989). *Community-based curriculum: Instructional strategies for students with severe handicaps* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Forest, M. (Ed.). (1987). *More education/integration*. Downsview, Ontario: G. Allan Roeher Institute.

Friend, M. (1988, November). *Teacher's use of interaction skills in collaboration and consultation: Implications for teacher preparation*. Paper presented a[illegible]1th

annual conference of the Council for Exceptional Children's Teacher Education Division, Salt Lake City, Utah.

Fuchs, D., & Fuchs, L. (1988). Mainstream assistance teams to accommodate difficult-to-teach students in general education. In J. Graden, J. Zins, & M. Curtis (Eds.), *Alternative educational delivery systems: Enhancing instructional options for all students* (pp. 49–70). Washington, DC: National Association of School Psychologists.

Goldstein, A., & Sorcher, M. (1974). *Changing supervisor behavior*. Elmsford, NY: Pergamon Press.

Grenot-Scheyer, M., Coots, J., & Falvey, M. (1989). Developing and fostering friendships. In M. Falvey (Ed.), *Community based curriculum: Instructional strategies for students with severe handicaps* (2nd ed., pp. 345–358). Baltimore: Paul H. Brookes Publishing Co.

Haydek, R. (1987). The teacher assistance team: A pre-referral support team. *Focus on Exceptional Children, 20*, 1–7.

Heron, T., & Harris, K. (1987). *The educational consultant* (2nd ed.). Austin, TX: PRO-ED.

Idol, L., Paolucci-Whitcomb, P., & Nevin, A. (1986). *Collaborative consultation*. Rockville, MD: Aspen Systems.

Idol-Maestas, L. (1983). *Special educator's consultation handbook*. Austin, TX: PRO-ED.

Idol-Maestas, L., Nevin, A., & Paolucci-Whitcomb, P. (1984). *Facilitator's manual for collaborative consultation: Principles and techniques*. Reston, VA: National RETOOL Center, Teacher Education Division, Council for Exceptional Children.

Johnson, L., Pugach, M., & Hammittee, D. (1988). Barriers to effective education consultation. *Remedial and Special Education, 9*, 41–47.

Miller, J., & Peterson, D. (1987). Peer-influenced academic interventions. In C. Maher & J. Zins (Eds.), *Psychoeducational interventions in schools: Methods and procedures for enhancing student competence* (pp. 91–100). Elmsford, NY: Pergamon Press.

Nevin, A., Thousand, J., Paolucci-Whitcomb, P., & Villa, R. (1989). *Collaborative consultation: Empowering public school personnel to provide heterogeneous schooling for all*. Manuscript submitted for publication.

Perske, R., & Perske, M. (1988). *Friendship*. Nashville: Abingdon Press.

Pugach, M. (1988). The consulting teacher in the context of educational reform. *Exceptional Children, 55*, 273–275.

Pugach, M., & Johnson, L. (1987). Peer collaboration. *Teaching Exceptional Children, 20*(3), 75–77.

Reynolds, M. (1989). Foreword. In R. Gaylord-Ross (Ed.) *Integration strategies for students with handicaps*. Baltimore: Paul H. Brookes Publishing Co.

Rosenfield, S. (1987). *Instructional consultation*. Hillsdale, NJ: Erlbaum.

Sapon-Shevin, M. (1987). The national education reports and special education: Implications for students. *Exceptional Children, 53*, 300–307.

Schenkat, R. (1988, November). The promise of restructuring for special education. *Education Week, 8*, 36.

Schowengerdt, R., Fine, M., & Poggio, J. (1976). An examination of some bases of teacher satisfaction with school psychological services. *Psychology in the Schools, 13*, 263–274.

Stainback, S., Stainback, W., & Forest, M. (1989). *Educating all students in the mainstream of regular education*. Baltimore: Paul H. Brookes [illegible]shing Co.

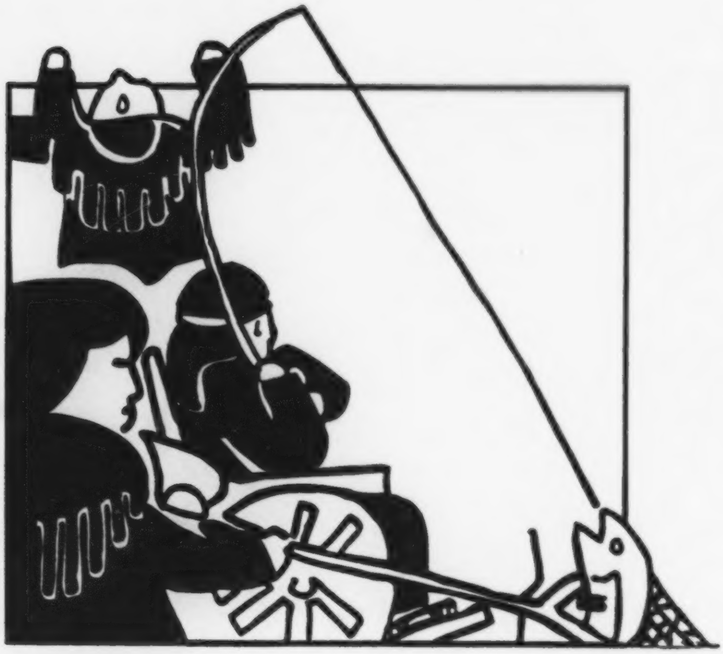
Stainback, S., Stainback, W., & Harris, K. (1989). Support facilitation: An emerging role for special educators. *Teacher Education and Special Education, 12,* 148–153.

Vandercook, T., & York, J. (1988). Integrated education: MAPS to get you there. *Impact, 1*(2), 17.

Wilkinson, J. (1980). On assisting Indian people. *Social Casework: Journal of Contemporary Social Work, 61,* 451–454.

Section 5

CURRICULUM MODIFICATION APPROACH:
Circle of Friends



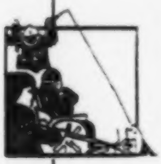
Module Developers:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 5
CURRICULUM MODIFICATION APPROACH: CIRCLE OF FRIENDS

PURPOSE



The purpose of this section is to introduce the concept of circle of friends developed by Snow and Forest (1989). Teachers will gain helpful suggestions for how to create a feeling of belonging for a child who experiences a disability in their classroom, school and ultimately their community. Participants will learn the necessary steps in creating a circle of friends and have an opportunity to form a circle of friends.

LEARNER OUTCOMES

1. Participants will describe the concept of circle of friends.

2. Participants will form a circle of friends for one student who experiences a disability.

CONTENT FOCUS

Snow and Forest (1987) have described a process of building a "circle of friends" around a new student who experiences intensive needs. In the process, potential peer buddies individually draw four concentric circles that become progressively larger around a central stick figure. Each participant includes his or her closest relationships in the first circle (e.g., family members, best friends). Additional people are placed in the second and third circles, based upon their degree of closeness to the student. In the fourth circle are the people who are paid to be in the student's lives (e.g., doctors, teachers).

The process is repeated for the student who experiences a disability. The main objective of this activity is sensitize other peers to a new student's friendship needs through a visual representation of the imbalance between the number of people within their own friendship circles and the number within the new student's circle. Forest and Lusthaus (1989) emphasize that the outcome of the process is not to engage peers in a special, short term helping relationship, but to create "network that allows for the genuine involvement of children in a friendship, caring, and support role with their peers" (p. 47).

STOP AND READ HANDOUTS 1 AND 2.

Next, complete Activity #1.

Complete the readings for this section.

Stop and look at Overhead 1. What differences do you see between Trevor's and Mark's circle?

Next, complete Activity #2.

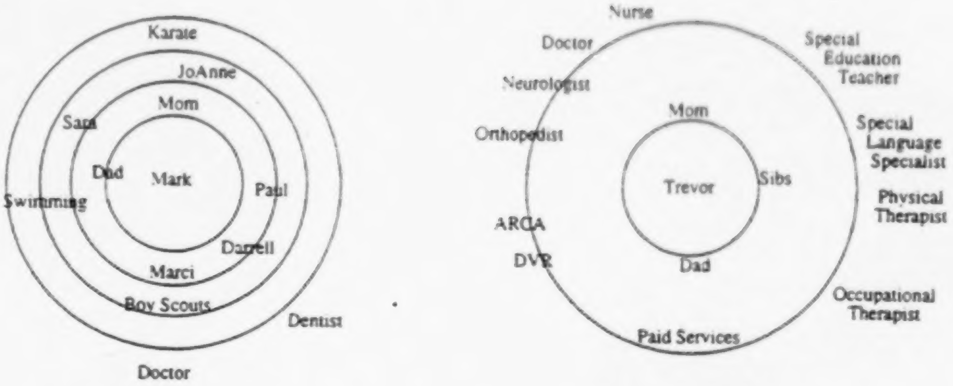
Complete Assignment #1.

OVERHEAD 5.1

COMPARING TWO EXAMPLES OF CIRCLE OF FRIENDS

Circle of Friends

(Forest. 1989)


Karate
JoAnne
Mom
Sam
Dad
Mark
Paul
Swimming
Darrell
Marci
Boy Scouts
Dentist
Doctor
Nurse
Doctor
Special Education Teacher
Neurologist
Mom
Special Language Specialist
Orthopedist
Trevor
Sibs
Physical Therapist
ARCA
DVR
Dad
Occupational Therapist
Paid Services

Not Disabled Student

Student with Disabliity

BEST COPY AVAILABLE

FOOD FOR THOUGHT

"The school must become a place of welcome for parents as well as children, assisting them in strengthening their abilities to dream, to work for inclusion despite many barriers, and to contribute to the making of an inclusive school
(Judith Snow, 1989)."

"Classroom teachers hold the keys to inclusion for an excluded student. Though they may not believe it until they experience inclusion for themselves, inclusion draws on the same capacities that make them good teachers for any child."
(Marsha Forest, 1989).

READINGS

O'Brien, J., Forest, M. (1989). Action for inclusion: How to improve schools by welcoming children with special needs into regular classrooms. Toronto, Ontario: Integration Press.

SECTION ACTIVITY OR ASSIGNMENT

Activity #1: Illustrate your Circle of Friends.

Using the concept described in the section content and the readings draw four concentric circles and illustrate your circle of friends.

- Describe your circle.
- What creates a **rich** circle of friends?

Activity #2: How Can You Be a Resource for a Child with a Disability?

Reread pages 29-31 of Action for inclusion. Now consider your particular role as a teacher or teaching assistant.

How can you be a resource for the student who experiences a disability?

- List the different ways in your journal.

Now, consider the list of nine misunderstandings illustrated in Handout 5.3.

How many of these common misunderstandings do you have?

Do you think differently about any of them now?

In what ways?

Jot down your thoughts in your journal.

Share your thoughts and entries with other teachers and teaching assistants in your building.

ASSIGNMENT #1:

Create a Circle of Friends for one student who experiences a disability.

Using the concept, examples, and steps described in this section and the readings start a circle of friends for one child who experiences a disability in your classroom/school. Videotape the circle. Turn the tape in for this section. In your journal respond to the following issues/questions:

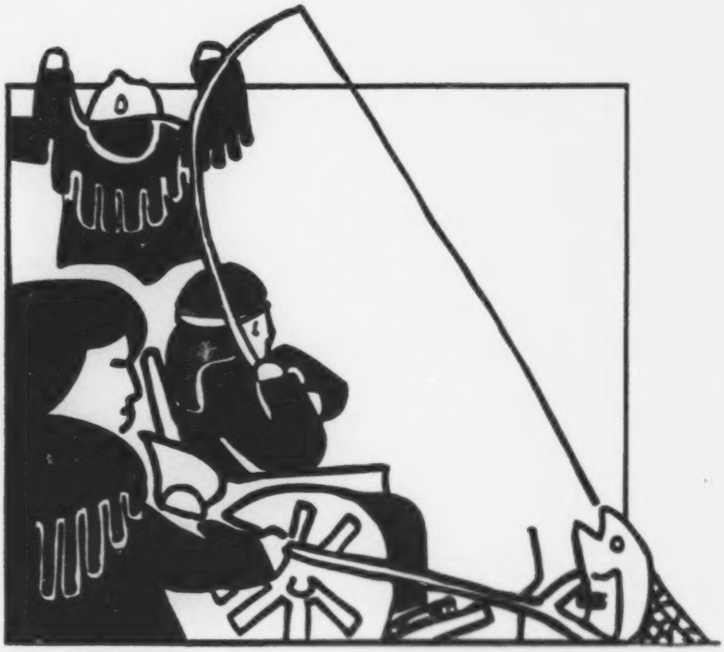
- What were the most important aspects of this assignment for you?
- How did the students feel about this activity?
- What resulted from this activity?
- What supports will be provided to the student who experiences a disability as a result of this activity?
- What did you learn from this assignment that you would repeat in your next facilitation of a circle of friends?
- What would you do differently?

REFLECTIVE JOURNAL

Enter your reactions to the questions posed in the activities and the assignments.

Section 6

CURRICULUM MODIFICATION APPROACH: MAPS



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 6
CURRICULUM MODIFICATION APPROACH: MAPS

PURPOSE

The unique intent of this section is to introduce participants to the strategy of a MAP. MAPs is a futures planning system that involves the student who experiences a disability, the student's parents, friends, teachers. In this section the participants will learn the steps in conducting a MAP, conduct a MAP on themselves as well as a student who experiences a disability. MAPs can be used in preparation for an individual education plan, to keep current on the students educational program outcomes, as well as a method for facilitating inclusion.

LEARNER OUTCOMES

1. Participants will become familiar with the concepts and steps in conducting a MAP for one student who experiences a disability.
2. Participants will have a friend and/or colleague conduct a MAP for them.
3. Participants will jointly conduct a MAP for a student who experiences a disability.

CONTENT FOCUS

One curriculum modification strategy for facilitating inclusion is MAPS. Originally developed as the McGill Action Planning System (Forest, M. & Lusthaus. E. 1987) this futures planning system is now simply referred to as MAPS or making action plans.

The process of MAPS assures membership in the class for the student who experiences severe disabilities. Every student becomes an intricate member of the regular education classroom, their school and community when "offered the adaptations to curriculum and daily routine necessary to support participation in the learning opportunities available" (O'Brien, Forest, Snow, Pearpoint, & Hasbury, 1989, p. 47). When other students, teachers, parents and administrators come together to identify and solve the problems and issues the student who experiences a severe disability becomes a more active participant in his or her school and community.

The goal of a MAP is to bring together people who support the needs of the student who experiences disability to plan any adaptations to curriculum and daily routines necessary to ensure that the student becomes an active member.

There are several key steps to consider when conducting a MAP. First, prepare for the MAP. Second, conduct a MAP for yourself, so that you can better understand the process as well as what it feels like to be the center of attention and the focus of the MAP. Action for Inclusion (O'Brien & Forest, 1989) contains a list of the seven specific steps involved in conducting a MAP.

Vandercook and York (1990) suggest guidelines for conducting a MAP. These strategies are worth considering prior to facilitating a MAPS. First, be comfortable with the individuals in the students MAP. Second, be comfortable interacting with both adults and children and be able to solicit input from all participants. Third, recognize the contribution of all members of the MAPS. Fourth, be committed to building an integrated school community in which the individual student with a disability is valued and provided the support necessary to be a member of the class with same-age peers.

Stop and Do Activity #1 now.

Now that you have viewed the video *With a Little Help From My Friends* complete the section readings

Stop and Complete Readings.

REFLECTIVE JOURNAL

Stop and Do Assignment # 1 now.

Using your reflective journal respond to the following questions.

(a) Describe how it felt to be the center of a MAP.

(b) What specific things did you feel were positive about this experience?

(c) What things would you have liked to be different?

(d) Having completed this process what have you learned that would help you when doing a MAP for a student who experiences a disability?

Stop and Do Assignment #2 now.

REFLECTIVE JOURNAL

Using your reflective journal respond to the following questions.

(a) Describe how it felt to do a MAP.

(b) What specific things did you feel were positive about this experience?

(c) What things would you have liked to be different?

(d) Having completed this process what have you learned that would help you when doing your next MAP?

(e) What were you able to use from MAPs to assist in either IEP development or curriculum programming issues?

OVERHEAD 6.1

**"INTEGRATION IS NOT AN
EXPERIMENT
TO BE TESTED,
BUT A VALUE TO BE
FOLLOWED."**

(Ferguson & Asch, 1989).

FOOD FOR THOUGHT

"We need one another, So I will defend
Each man as my brother,
Each man as my friend."
John Donne

Quality education means effective teaching of the 3 R's, but it also includes emphasis on another R: RELATIONSHIPS. Relationships are an important part of the image of the kaleidoscope (depicted in "Kids Belong Together"), for the kaleidoscope is an image of diversity of colour where children learn to build relationships with others who have different needs

(Forest & Lusthaus, 1987)

READINGS

Vandercook, T., York, J., & Forest, M. (1989). MAPS: A strategy for building the vision. In J. York, T. Vandercook, C. MacDonald, & S. Wolff. (Eds.), Strategies for inclusion. Minnesota: University of Minnesota, Institute on Community Integration.

Vandercook, T. & York, J. (1990). A team approach to program development and support. In W. Stainback & S. Stainback (Eds.), Support networks for inclusive schooling: Interdependent integrated education (pp. 95-122). Baltimore: Paul H. Brookes.

Forest, M. & Pearpoint, J. (1992). Putting all kids on the map. Educational Leadership, 2(50), 26-31.

SECTION ACTIVITY OR ASSIGNMENT

Activity #1: Watch With A Little Help From My Friends

Assignment #1: Conduct a MAP for yourself.

Assignment #2: Conduct a MAP for one student who experiences a disability.

(1) Videotape the process.

Remember to include the following steps:

- (a) what is the individual's history?
- (b) what is your dream for the individual?
- (c) what is your nightmare?
- (d) who is the individual?
- (e) what are the individual's strengths, gifts, and abilities?
- (f) what are the individual's needs?
- (g) what would the individual's ideal day at school look like and what must be done to make it happen?

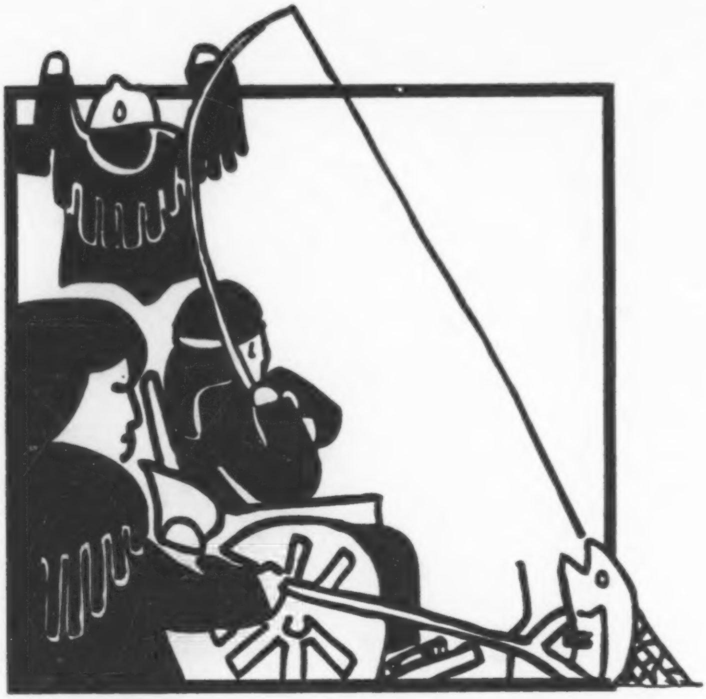
(2) Provide a summary of the MAPS for each participant.

(3) Take a slide picture of all seven butcher block pages used to complete a-f during the MAPS meeting.

(4) Ask each member of the MAPS to write down on one index card their feelings regarding participating in a MAP.

Section 6

CURRICULUM MODIFICATION APPROACH:
MAPS



Readings

EDUCATIONAL LEADERSHIP

Volume 50 Number 2 October 1992

175

Untracking for Equity

Putting All Kids on the MAP

Marsha Forest and Jack C. Pearpoint

"Dream your dream," the facilitator urges, and students, families, and friends respond by suggesting many ways to bring almost any child into the regular classroom. This teamwork approach to planning enables educators to end the segregation of special education students.

Annie. Tommy. Jay. Andreas. Katherine. Becky. Erica. Mark. Greg. Miller. Peter . . . the list is too long and too painful to finish.

These are the names of some of the children who have been rejected by public schools in Canada and the United States. They are black and white. girls and boys. youngsters and teenagers.

In common is their parents' simple dream of having their children accepted and educated in a quality school alongside their peers.

In common is the label *disabled* pinned on them. like the yellow star pinned on people labeled Jewish. and the pink triangle pinned on people labeled homosexual. during World War II.

The Nuremberg Trials confirmed to the world that pinning yellow stars and pink triangles on people was a crime against humanity. But today. no trials have ruled that IQ scores and disability labels often sentence children to lifelong failure.

We know that special education is neither special nor educational in any sense of the word. The outcome for people labeled *disabled* is often a life of loneliness. poverty. and joblessness—not an outcome any parents would choose for their son or daughter.

Everywhere we go. people are talking about the "Butwhatabout Kids." Some of the popular euphemisms include *hard to serve* and *at risk*. Why don't we just admit it outright? These are children and teenagers who scare us to death; they make us vulnerable and nervous. That is natural. normal. and human. What is unnatural. abnormal. and inhuman is our systematic "boxing" and subsequent rejection of the people we fear.

When we meet teachers who fear having certain students in their classrooms. we offer alternatives. MAPS (Making Action Plans) is one of those tools that takes responsibility from one person and puts it in the hands of a team that comprises school personnel. family. friends. and the children themselves. (We describe a second practice. Circle of Friends. in "Portrait of Diane" and "Portrait of Norman." pp. 29. 30.)

It is glib to think that anyone will learn all he or she needs to know about dealing with children wi complex needs in one article. But. with consisten use of MAPS (and Circle of Friends). we have found great success in being able to include almo all children in regular classrooms.

The MAPS Setting

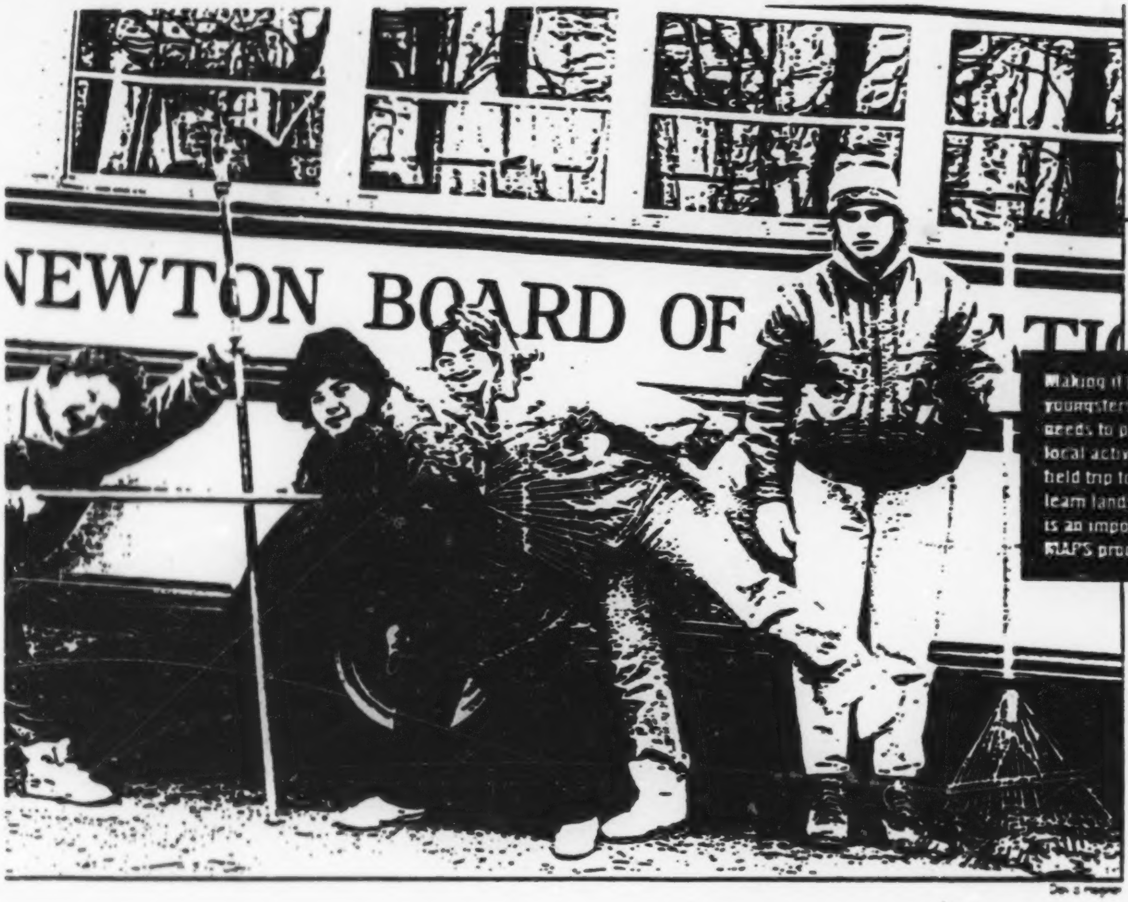
MAPS is a collaborative process that brings the key actors in a child's life together to create an action plan to be implemented in a regular clas room setting. It is *not* a case conference or vidual education plan (IEP). but the results certainly be used on any IEP form.

MAPS is facilitated by two people. School personnel or an external team can act as facilitators. and they need not be familiar with the stude or the family. However. they must know the MAPS process inside out. and they must believe 150 percent that full inclusion is possible for all. The facilitators must also be good listeners—abl to hear great pain without providing immediate advice and solutions. Their main task is to pull information from the group and move it along in an action plan.

One facilitator acts as the "host." This person welcomes the group. explains the process. and guides the questions.

The second facilitator is the recorder. creating record of what the group says with color and graphics on large chart paper. This public recor an essential element of a MAP.

A personal and informal atmosphere is also essential. Before the meeting. the facilitators should set up comfortable chairs in a semicircle The chart paper and clean markers should be re along with snacks and colorful name tags.



Making it possible for youngsters with special needs to participate in local activities—like this field trip to a camp to learn landscaping skills—is an important role of the MAPS process.

Eight Key Questions

A MAP is created through eight questions. Each question must be used, but there is no particular order. The facilitators decide on the order depending on the needs of the group. To illustrate how a MAP works, we'll discuss a student named Mark.

Before the questions begin, the facilitator should ask, "Who are you and what is your relationship to Mark?" This sets the collaborative tone for the meeting as participants introduce themselves.

Question 1: What is a map? Participants are asked to think of the characteristics of a map. One recent group answered:

> "A map shows direction."
> "It tells you how to get from one place to another."
> "It shows you how to find stuff."
> "A map tells you where to go."

The facilitator can then explain:

> "That's exactly what we're here to do: to show direction for Mark's life, to help him and his family get from one place (the segregated class) to another place (the regular class).
>
> "The MAP will also help us figure out how to find the 'stuff' that Mark needs. If we all work together, we can decide where to go next. Together we can create a plan of action that we can put into practice for Mark starting right away."

Question 2: What is the story? The facilitator can pose this question something like this:

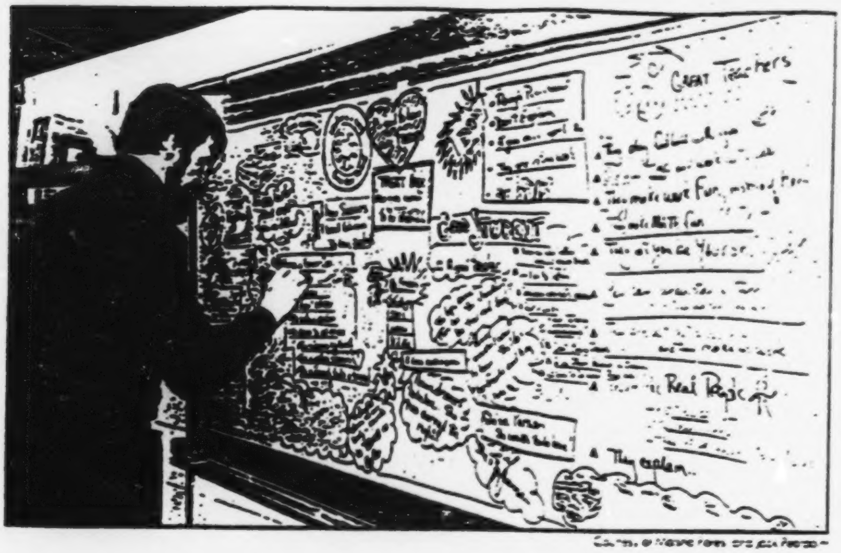
> "Please tell us your story. What are the most important things that have happened since Mark was born? I know you can go on and on with this, so I'll limit you to 5-7 minutes. Tell us what you feel is really important for all of us to hear and to know about Mark's story."

The facilitator must listen with heart, soul, and body and be careful not to make this a case history. The facilitator must also ask the participants to listen with their hearts:

> "Don't listen just with your ears. Listen with your whole body. Don't be judgmental. This is not a trial. Try to feel and hear what the person is telling you as if it were your own story."

We usually ask this question before the dream question, depending on the mood of the group. The recorder represents the story using words and

BEST COPY AVAILABLE



[illegible]

The MAPS recorder creates a colorful graphic representation of the group's plan.

pictures. The recorder also summarizes the story after the family or student has spoken, checking the facts and essential elements of the story. (Making simple errors, especially with names, can be very upsetting to people, so request assistance.)

Question 3: What is your dream? This is really the heart and soul of the MAP. The facilitator must create an atmosphere that helps the family and student feel comfortable about sharing their true dreams, hopes, and wants. The question might be posed like this:

> "If you could dream the dream you really want, if you could have anything with no holds barred, what do you really truly want for yourselves and for Mark? Money is no object. Don't hold back. Let yourselves be free. Don't ask for what you think you can get. This is different. This is what you really want and dream about or pray for."

There is often a deathly silence at this moment. It is essential. Do not interrupt. Wait. Allow people time to build up their courage to express their feelings and hopes. If this is rushed, the whole MAP may be futile.

When a facilitator asks this question with an honest heart, profound things often happen. In our years of asking this question, parents all over the continent have told us that the MAP empowered them to dream again.

"But," someone out there is thinking, "Butwhatabout" the student who can't speak? We have done many MAPS with children labeled *nonverbal*. Although these children don't speak, they certainly communicate. And if the group knows the child well, someone will be able to articulate his or her own dreams for the child and also the dreams he or she thinks the child might have. For example: "If Mark could speak, what do you think his dream would be?"

Families often weep as they tell us, "My dream is that my child be happy, be included in school, walk or ride to school with his sister, be invited to birthday parties, have a hamburger with a friend, and have the phone ring just for him."

One 12-year-old girl told us, "I want a trip to Hawaii and a job with computers. Also a pet dog." She was clear as a bell!

One parent of a medically fragile child told us, "I want my child to have one real friend before she dies. My nightmare is that my child will never know friendship." (This little girl did die soon after, but because she had moved into a district that welcomed her, the mother did get her wish. The entire 3rd grade class attended her daughter's funeral.)

Question 4: What is my/our nightmare? Many people consider the nightmare question the hardest to ask, and we agree. But we believe it is one of the most important because the MAP must identify the nightmare in order to avoid it. Unless the *outcome* of the plan of action is to prevent the worst from happening, we're just doing busywork.

In 10 years of doing MAPS, we find these are the most consistent responses to the question: "My nightmare is that my child will end up in an institution with no one to love him (or her)." "We will die, and my child will be alone and put in a group home." "My child will never have a friend."

No one has ever said "I'm afraid my child will not get an *A* in math or learn phonics."

No one has ever said, "I'm afraid there won't be a proper functional curriculum."

This question often breaks the ice between warring factions. A Kentucky woman broke down describing how her 18-year-old son was currently living out his nightmare being institutionalized, after having blinded himself. "Our family is in the nightmare," she wept. "All we wanted, all we want now, is some shred of human kindness and friendship for our son."

We had to stop for coffee as all participants, both factions, were in tears. For the first time they were meeting as human beings rather than as warriors on opposing sides of a placement review table.

Questions 1 through 4 are Part I of MAP. It is often necessary to take a break at this point. The second part lighter, faster-paced, and moves toward the action plan.

MAPS—Part II

Question 5: Who is Mark? This is a brainstorming question. To get started, we like to draw an outline o person on the chart paper. We hand out sticky notes and ask each person write one word or phrase that describes the student. We post the

BEST COPY AVAILABLE

notes on the chart paper to give us a snapshot of the student. Mark's snapshot read: *curious, handsome, determined, likes good snacks, always hungry, potential, my son, dimples, pretty ordinary, my brother, very active, pest, a little brat, somebody's great friend someday, an interesting boy, lively, likes to play with drums, great family.*

We sometimes ask, "What have other people said about Mark in the past? What words have been used before in other meetings?" Mark had been described as: *retarded, developmentally delayed, autistic, severely autistic.* These words should be posted separately, but the recorder may want to highlight the dramatic differences between the two portraits of the same person.

Question 6: What are Mark's strengths, talents, and unique gifts? What is he good at? Another list is generated: *happy, beautiful boy, loving, friendly, he can look you in the eye and smile, gives a lot, he has a "look," helps to put things in perspective, makes you feel good.*

This brainstormed list is important as it gives us many ideas for the curriculum and daily program: Mark likes to throw balls, play with ropes and strings, climb in parks, eat, relax, swim laps in the pool, play in water puddles, go skating, play in clothes closets, and be with people.

By this point we have generated an enormous volume of information on Mark, and it's time to move to an action plan.

Question 7: What does Mark need? What do we need to do to meet these needs? At this MAP the only people present were Mark's mom, dad, teenage sister, and a dedicated teacher/friend. When it came to Mark's needs, there was a real consensus that Mark "needs to be

Portrait of Diane

Try to imagine a world in which you do not have a single person who truly loves you. Imagine that you see only paid personnel in the morning and at bedtime. Imagine a world where none of your peers speaks or walks. Imagine having no family and no friends.

Recently, we met a young woman who literally had no one in her life. She is 16 and knows no one her own age. Diane had been abandoned by her parents at 4 and placed in a group home for children with severe to profound mental retardation.

As we did her MAP, Diane sat with us and listened intensely to the conversation. We were told that she banged her head and screamed constantly. The Diane we observed sat still for two hours and listened intently. What did she hear? What did she understand? It is our belief that she heard and felt our concern. We believe she responded to that caring by sitting with us for two hours.

It was clear that an intentional Circle of Friends needed to be built immediately. Diane had spent her days in a segregated class in a regular high school. Though she was at the school, no one really knew her.

The school called together a group of teenagers and teachers who expressed an interest in helping Diane.

"How would you feel if your life was like Diane's?" we asked.

One young woman said without hesitation, "I'd commit suicide." Others said, "I'd sleep all the time." "I'd take drugs." "I'd drink." "I'd kill someone."

They saw immediately that what Diane needed most was to be with them—to get out of the segregated room. They brainstormed places they could go with Diane. There was a rock concert coming up, and one student volunteered to take Diane with her and her other friends. Another decided to visit Diane and have dinner with her at the group home. The students thought Diane would like the music and cooking classes with their noise and "pretty cool" teachers. The ideas flew. Diane sat through the meeting with a smile as she gently rocked back and forth, back and forth.

Several teachers decided to get involved. Rather than blaming themselves for what they had done in the past, they switched their energy into actions they could deliver in the future.

The result: Diane now has regular visitors to her group home. She has gone out more in 6 months than in the past 10 years, and one teacher and student seem to have formed a special bond with her. They have invited Diane to their homes for dinner and to go on Sunday outings. Best of all, Diane is out of the segregated room and goes to music, cooking, and other regular classes. She hangs out in the lunch room and has stopped poking the corners of her eyes and screaming as much as before. Is Diane "cured"? No! Does she now have people to talk to, things to do, a life to look forward to? Yes!

Equally important, Diane's classmates are getting hands-on experience in problem solving (number one issue in the curriculum) with a real and relevant problem. They have to create curriculum and timetables and troubleshoot with Diane. They are learning to manage teachers, manage behavior, and confront values. Their friendship with Diane may be one of the most important learning activities of their lives. And now Diane has a dream, with a new Circle of Friends as a part of it. ■

—Marsha Forest and Jack C. Pearpoint

When we meet teachers who fear having certain students in their classrooms, we offer alternatives.

Portrait of Norman

Norman wanted to go to camp, but everywhere he and his family went, they were told that Norman's needs were too great. One young counselor wrote us this letter illustrating the simplicity and complexity of the idea of a Circle of Friends.

> We decided Norman could attend our camp. That was a big step in the right direction. I had all the kids together in the recreation hall, and I gave my little speech. "A circle of friends is any support group that helps any camper having problems feel more welcome and included." I was received with blank stares.
>
> After bombing with this great opening statement, I simply asked the kids to talk about Norman, who they had met that morning. "What do you think Norman can do all day at camp?" Boom! Everyone was talking at once. That was a question 10-year-olds could relate to—it wasn't a lecture on circles.
>
> The meeting lasted about 20 minutes, ending with suggestions about how they could do things together with Norman. I asked for a smaller group of volunteers to help me plan Norman's day. *Everyone volunteered.*
>
> Norman's biggest challenge and the reason he had been rejected by every other camp in the universe was "weak bladder control." Several people (adults) had suggested that Norman should sleep in a separate building to "hide" the problem.
>
> I decided (with Norman's permission of course) to put the issue out in the open. The children suggested (quite matter-of-factly) that they take turns waking Norman up in the night to go to the bathroom. It never occurred to them (and they rejected outright) the suggestion that he sleep in another building! The counselors volunteered to take turns helping when needed.
>
> Many baseball games, slumber parties, canoe and splashing trips later, Norman no longer requires a "one-to-one" worker. His bladder problems are getting better (only twice a week instead of every night). Norman's circle of supporters (now a smaller group of real potential friends) meets for an hour every four days. The children and counselors really look forward to it. So does Norman. Norman's circle has become a place fo all involved to get support. Last week Norman wasn't even the issue. The topic of the day was Tanya's bad temper.
>
> Finally I should tell you that the socia worker called me in shock regarding the progress Norman had made. She asked if we could work on building a circle in his school and in his group home community this fall. I told her I would love to come and help one of th school people become a facilitator. I guess I really learned a lot in the workshop on MAPS and Circles. Norman was my chance to try it out myself. It was the best experience of my career. I'm launched.
>
> Thanks and love, Da

As Norman's story illustrates, attitudes are the major barrier to including all students in all activities But attitudes are no longer an adequate excuse. We must welcome all children now. It is their right. ■

—Marsha Forest and Jack C. Pearpo

Families receive several small tokens at the end of a meeting, including a copy of the MAP.

[illegible]

involved and to meet people his own age." The family needed him to meet other children so his mother could begin to build a life of her own.

Question 8: What is the plan of action to avoid the nightmare and to make the dream come true? The family agreed that it would be a godsend to find someone to take Mark to local places where he could get involved with other kids. The job description for that person was developed from what was said at the MAP:

- Find places where he can meet kids.
- Find kids to spend time with him.
- Go to the youth center.
- Get involved in trips, swimming, and activities.
- Develop more communication skills.

When you frame the needs question carefully, it flows directly into an action plan. When planning a curriculum, for example, we might draw the timetable and have the other students brainstorm all the activities that Mark likes and could do. Then we would explore the logistics. If Mark is going to get from history to gym and be dressed in 10 minutes, he will need help—a guide. Who would be willing to help? We link specific people to specific times, places, classes, activities. A concrete action plan, with actual activities to do right away, is crucial. (An additional planning tool, called PATH, uses the information gathered in the MAP to develop a strategic plan of action.)

In this instance, the family enthusiastically agreed to plan a pizza party and invite some neighborhood kids—that weekend. Together with Greg, the teacher/friend, they started to look for someone to take Mark into the community. Greg agreed to facilitate another MAP with a wider group in one month.

As the MAP is concluded, the recorder talks the group through a summary of the charts and presents them to the family as a gift. Other tokens, such as a plant or a cake, are also presented.

Before the meeting ends, the facilitator asks each participant one more question:

> "Will you give me one word, or a phrase, to sum up your experience of this MAP. Off the top of your head, the first thing that springs to mind ... "

Mark's group answered:

> Mom: "I'm relieved. Great session."
> Dad: "Very positive. Thanks."
> Mark: (gives us all a really big smile)
> Greg: "Fabulous and positive."

A Kaleidoscope

The MAP is like a kaleidoscope, a mysterious and magical toy that changes constantly. Through the eyepiece we see little bits of beautiful color and light turning together in an everchanging mosaic.

The kaleidoscope picture is like the outcome of each MAP: people work together to make something unique and better happen. The MAP is more than anyone can do alone. It proves what we strongly believe—together we're better! ■

Marsha Forest and **Jack C. Pearpoint** are founders and directors of the Cent for Integrated Education and Community and also Inclusion Press, 24 Thorr Crescent, Toronto, Ontario, Canada M6H 2S5.

Vandercook, T. & York, J. (1990). A team approach to program development and support. In W. Stainback & S. Stainback (Eds.), Support networks for inclusive schooling: Interdependent integrated education. Baltimore: Paul H. Brookes. (p. 95-122).

PO Box 10624 Baltimore MD
21285-0624

2.117

Terri Vandercook
Jennifer York

7

A Team Approach to Program Development and Support

What is the purpose of education? What are the available learning opportunities and desired outcomes of participation in public schools? How is an educational system deemed effective? These questions have many responses that can be found in almost any text on education and in school district mission statements and handbooks specifying learner outcomes. In the growing literature on effective schools, one of the identified difficulties in determining whether or not a school is effective lies in the differing expectations that parents, researchers, teachers, and numerous other constituents have for schools or, at least, the different degrees of emphasis placed on various expectations. Despite a lack of uniform agreement, Raiche (1983) has identified the following areas of achievement as ones that most people would promote to some degree for all students: basic skills, higher order thinking and reasoning, psychological development, development of social

---

Development of this paper was supported in part by the Minnesota Integrated Education Technical Assistance Project (Grant No. 37010-57613) and the Least Restrictive Environment Project (Grant No. G008630347-88). The opinions expressed herein do not necessarily reflect the position or policy of the Minnesota Department of Education or the U.S. Department of Education and no official endorsement should be inferred.

We wish to acknowledge Mary and the circle of caring people associated with Lincoln Elementary School in Fairmont, Minnesota, who participated in her MAPS planning session. They fill us with hope! Also, we thank our colleagues, Sue Wolff, Jan Menke, and Cathy Macdonald, for their assistance in developing the "Regular Classroom Integration Checklist."

2.118

skills, and vocational preparation. In many states, these major areas of achievement are reflected in legislation. In Minnesota, for example, the legislatively declared purpose of public education reads as follows:

> . . . the purpose of public education in Minnesota is to help all individuals acquire knowledge, skills, and positive attitudes toward self and others that will enable them to solve problems, think creatively, continue learning, and develop maximum potential for leading productive, fulfilling lives in a complex and changing society. (Minnesota Statutes Section, 1988)

This statement applies to all individuals receiving a public education. To a certain extent the curriculum for each individual is tailored, dependent upon his or her needs, interests, and future plans upon graduation. The supports required by individual students to meet identified needs vary also. Some students will require more extensive tailoring and individualized supports than others in order to achieve the educational outcome of community membership and participation. Given the varied and complex needs of some students, educational programs must be carefully designed and implemented by a team of individuals, including both adults and students. The purpose of this chapter is to provide practical teamwork strategies for including students with unique needs in regular school life. Specific emphasis is placed on the invaluable role of same-age peers in program design and implementation and on the appropriate use of support personnel in regular classes. First, general team functions and roles are delineated. Second, a specific team planning process is described and an example provided. Third, strategies for facilitating inclusion in regular classes are discussed.

COLLABORATIVE TEAMWORK

The development of an individualized program for many children, including those with intensive, multiple needs requires the collaboration of a variety of people, including adults and students. Each team member contributes unique perspective and expertise. Together, these contributions provide the information to identify strengths and needs, to analyze performance difficulties, and to design and implement effective curricular and instructional strategies. Collaboration among team members is the key to successful inclusion of all students in a regular class. Collaboration involves a nonhierarchical relationship in which all team members are seen as equal contributors, each adding his or her own expertise or experience to the problem-solving process (Mittler, Mittler, & McConachie, 1987; Sileo, Rude, & Luckner, 1988; Zins, Curtis, Graden, & Ponti, 1988).

In addition to the benefits of collaboration due to the va[illegible]erspectives and contributions of individual team members, effect[illegible]ms

yield the benefits of belonging, support, and power. All adults and children have a basic need to belong and to feel that they have some power (Brandt, 1988). In an interview with Glasser conducted by Brandt (1988), Glasser asserted that the need for belonging is supported by the fact that when children are asked what the best part of school is, they invariably respond, "my friends." Glasser felt that students and teachers need to understand that everyone has a built-in need for friendship and belonging and opportunities for satisfying that need should occur as a planned part of learning. Glasser defined the need for power as a continuing sense that "I have some power; I'm somebody; people pay attention to me" (Brandt, 1988, p. 39). At a minimum this means that somebody listens to you. At the next level, an increased sense of power and satisfaction occurs when an individual listens and acknowledges you are right. The ultimate satisfaction and sense of power occurs when a person listens and sometimes concludes that your way is better than his or hers and it should be done your way. Students are not the only ones in the schools who are lacking a sense of belonging and power. Teachers also report a loss of control and a sense that their participation in developing effective schools is not highly valued (Maloy & Fischetti, 1985; Van Meter & Scollay, 1984; Walter & Glenn, 1986). Two organizational structures of the traditional American school that may lead to teachers feeling lonely and powerless are the implicit expectations that teachers work alone and that administrators exercise virtual autonomy in making decisions (Villa & Thousand, 1988).

Glasser (1986) suggested the use of learning teams as a strategy for meeting the needs of belonging and power. In a good team, the need for belonging is satisfied as a sense of caring is developed; the need for power is satisfied when individuals have opportunities to be listened to and affirmed, and when the effect of what he or she could do alone is multiplied. The learning teams that Glasser refers to is his term for the concept of cooperative learning espoused and supported as an effective instructional strategy by the research of Johnson and Johnson (1981); Johnson and Johnson (1987a); Johnson, Johnson, and Maruyama (1983); and Slavin (1977, 1987b). The use of collaborative teaming in the development of educational programs can also lead to a sense of support and empowerment for all team members (Johnson & Johnson, 1987b; Slavin, 1987a).

A final benefit of collaborative teamwork is that of group problem solving. A group has been defined as "a collection of individuals who join together to achieve a goal . . . individuals are not a group unless they are trying to achieve a mutual goal" (Johnson & Johnson, 1987a, p. 6). Use of group problem solving as opposed to individ[illegible]forts can yield many benefits. Kruger (1988) put forth several hyp[illegible]s in support of group efforts to address complex issues: 1) greater interest in the problem stimulated by group membership, 2) a summative effort of individual contributions, 3) the capacity to recognize and reject poorly conceived solutions, and 4) the availability of greater information. Not only do group efforts frequently yield better and more sustained outcomes, but many people find that the group interaction itself is reinforcing and feel supported within a group construct as opposed to when working in isolation. Groups can provide the supportive environment conducive to the new learning involved in change. In sum, collaborative teamwork can yield many benefits for adults and children by providing a rich forum of varied perspectives and expertise, by fulfilling the needs for belonging and power, and by employing group problem-solving strategies.

Team Members and Roles

The expansion of the planning team beyond the traditional partnership of the classroom teacher and the student's parents is sometimes necessary because no one or two people have the knowledge or skill to meet the varied and complex needs of some students. The composition of the team will depend on the student's needs but typically would include the student, his or her parents or guardians, an administrator or a designee, the classroom teacher, a support teacher with specialized training in curricular and instructional adaptations, and personnel from any related services that are required by the individual student. The inclusion of same-age peers on individual student planning teams is a fairly new practice with benefits that are supported by preliminary data (DiFerdinando, 1987; Scagliotti, 1987; Vandercook, York, & Forest, 1989; Villa & Thousand, 1988). Many adult team members recognize the invaluable contributions that can be made by classmates in terms of identifying age-appropriate needs and providing support throughout the school day. Discussed below are the primary contributions of each team member in developing and supporting an educational program that includes students with high needs in typical school and community environments.

Individual Student In developing an educational program in which an individual student is invested and one based on his or her interests, strengths, and needs, the active participation of the individual student should be encouraged and supported. Sometimes just the presence of the student at meetings assists other team members to remain focused upon the student's needs and sensitive to the importance of the task at hand. The presence of the student serves as a constant reminder that the ability and willingness of the team to problem solve creatively and collaborate will impact the quality of a person's life and that the meeting of a team is not simply an academic exercise or bureaucratic requirement. The extent and manner of the student's participation will vary. Some students can communicate their educational interests and challenges and will be able to make suggestions for addressing social and curricular needs at school. Others may not be able to communicate directly ideas in the format of a group meeting but may be able to communicate in indirect ways by their behavior in different situations. Team members who know the student well and observe him or her in different activities and environments can communicate behaviors displayed that may be indicative of educational strengths, challenges, and needs. The peers of the student will be particularly helpful in this regard.

2.119

Parents and Family Members of the Individual Student Parents and other close family members are key members of the team. They communicate not only a picture of the life of the student thus far, but also a vision of their hopes for the student's future. The involvement of family members in addition to parents will be unique for each student. For some, grandparents may be involved in their lives; for others, perhaps a sibling. Professionals will come and go in a student's life, but family members are a constant and have a long-term investment in the quality of life the child is experiencing. Integral involvement of family members can assist in achieving continuity of programming over time. Educational priorities identified by family members, therefore, should receive primary consideration.

Classroom Teacher The classroom teacher has several primary functions, including: 1) to view the individual as a member of the class rather than as a visitor, 2) to contribute information about the classroom curriculum, instructional strategies, management techniques, routines, and rules, 3) to work collaboratively with support personnel, family members, and peers in developing the educational program and in including the individual with his or her peers in typical classroom activities and routines, and 4) to provide a model of appropriate interaction and communication with the student, including recognition and acknowledgement of the positive attributes and contributions of the individual. The classroom teacher sets the expectation for acceptance and inclusion by focusing on what the student can do instead of on areas of difficulty. This mindset leads to building upon an individual's strengths, a proactive and effective educational strategy. Biklen, Corrigan, and Quick (1989) provided some excellent examples of teachers modeling techniques for bringing recognition to a student's unique educational needs, effectively communicating with a student who is nonverbal, and engaging in problem-solving/conflict resolution strategies with a student who is acting out in the classroom.

2.120

Support Personnel The support teacher with training in curricular and instructional adaptations and related services personnel with training in specific functioning areas (e.g., motor, vision, hearing) assume primary responsibility for adapting curriculum, materials, equipment, or instructional strategies such that the educational needs of the student can be met in the context of typical school and community environments. Support from personnel with specialized training could range from primarily consultation with the classroom teacher to a combination of consultation and direct intervention with the student. If the team decides that direct instruction by a professional support person is necessary, in most situations that instruction should occur in regular class settings and other typical school and community environments. In order to develop a new educational system in which all students are assisted to learn in regular class settings (Sapon-Shevin, 1988), the physical and conceptual isolation in which many professionals with specialized training have operated must end (Spodek, 1982). This requires personnel to assist in identifying needs based on student performance in instructional environments and activities (e.g., regular classes) and strategies for implementation in those settings (Giangreco, York, & Rainforth, 1989; York, Rainforth, & Dunn, in press; York, Rainforth, & Wiemann, 1988).

Another potential team member is a paraprofessional support person. Some students with high needs require, at least initially, a support person to be present in the regular class. The role of the support person in class is discussed in greater detail in the last section of this chapter. If it is decided that a support person is required to facilitate inclusion, this person must collaborate as a member of the team.

Building Principal As is true of the classroom teacher, one of the most important roles of the principal is to model an accepting and welcoming attitude toward all students in the school, conveying the message that each educator and student is valued for his or her unique contribution to the school community. Another critical role of the building principal is to demonstrate support of collaborative teaming by setting an expectation that teachers will collaborate, providing incentives for collaboration, promoting training on efficient team planning, and arranging for the time necessary to plan (Villa & Thousand, 1988; Zins et al., 1988). "The ultimate use of power should be to empower others" (Brandt, 1988, p. 45). This is operationalized when administrators support team recommendations by working with the team to provide the identified resource support.

Classmates of the Individual Student Classmates are proving to be valuable members of individual educational planning teams. This should not come as a surprise given that a major function of the team is to design strategies to support students with high needs in regular classes and other school environments. Classmates are the experts on the formal and the informal demands and opportunities of regular school life. They provide a fresh perspective on the needs of their classmates related to involvement in typical school environments and activities. Classmates also play a key role in supporting one another throughout their years in public school.

As contributing members of individual educational planning teams, classmates provide the evidence that students with high needs can be accepted, valued, and contributing members of the school community. Many adults grew up in schools and communities that separated individuals who had learning needs or styles different from the norm. This history of separation prevented many from acquiring the attitudes, values, and skills necessary to openly accept and support all individuals in the mainstream of school and community life or the capacity to envision that possibility. This phenomenon is illustrated by the fact that the most frequently heard comment by adults who either have observed an inclusive school community or are involved in creating one is some variation of: "I can't believe the kids, they are great, so accepting and so natural in providing support" (Hanline & Halvorsen, 1989). They go on to marvel at how positively the child responds to classmates, oftentimes more quickly and more agreeably than to adults.

There are many examples of the power of peers in the education of students with high needs (Forest, 1986, 1987; Perske, 1988; Ruttiman, 1988; Strully & Strully, 1985; Vandercook, Fleetham, Sinclair, & Rice Tetlie, 1988). The positive contributions of classmates are acclaimed also in teacher's lounges and living rooms throughout the United States and Canada as more school communities welcome and include all children. To illustrate, the authors share just a few stories about Mary and her classmates. Mary is a third grader who had been educated in a special education classroom for children with the label of severe disabilities until the 1988–1989 school year. Mary began the school year moving very slowly. As a result she was always a good 10 feet behind her classmates as they moved to other settings in the building. With a little coaching from her friends, she has learned to keep up. Once, Mary attempted to make her way to the head of the line before the class headed out for recess. One of her classmates caught her in the act and matter-of-factly explained to her that she could not "cut" and would have to go the end of the line. He pointed to the correct place and she amicably moved to that spot. Mary has also learned the generalized problem-solving skill of watching others around her as a strategy for figuring out what she needs to do. Watching others to determine expected behavior is an important adaptive skill for everyone (Snyder, Apolloni, & Cooke, 1977). At the beginning of the school year when

Mary did not know what to do, she would sit and do nothing and wait for someone to direct her. Now she watches others, and if she needs help, she will ask for it. The acquisition of these skills alone will have a large impact on the adaptive functioning of Mary in current and future environments.

A final benefit of the involvement of classmates on planning teams is that classmates potentially provide consistency across school years. Many classmates remain in the same class as the individual or at least in the same school. The maintenance of these relationships across the years is not only beneficial for the students, but for the adults on the team also. The adult team members, many of whom vary from year to year, profit by having people (i.e., classmates) on the team who know the individual well. In a research study conducted by Turnbull and Bronicki (1989), Turnbull discussed how some adults say they cannot handle Kevin (a 15-year old boy with severe mental retardation who requires dialysis five times a day). Based on the results of her study, she concluded, "They probably could if someone would help them, because the results of my science project show that children can learn what to do and be comfortable. I think everyone can be Kevin's friend. It just takes a little time" (p. 65). Classmates are in a position to provide assistance to new adults on the team, helping them "learn what to do and be comfortable."

Assumptions of Collaborative Educational Teamwork

There have been two major innovations introduced in the individualized planning process. The first innovation is the inclusion and contribution of family and friends in educational planning as evidenced earlier when family members and friends were identified as essential team members. Second, planning sessions are increasingly focused on a vision or image of the individual as a valued, contributing member of the community. From the vision of full inclusion, plans are made on how to realize that vision. This positive and inclusive orientation is in direct contrast to models of planning based on a deficit orientation (Hammill & Bartel, 1975; Kirk, 1972; Salvia & Ysseldyke, 1985).

Several formalized planning processes have been developed that require the participation of family members and friends and base planning upon an assumption that all individuals can be assisted and supported to be fully included in regular school and community life. The "Life-Style Planning" process (O'Brien, 1987; O'Brien & Lyle, 1987) and the "Personal Futures Planning" process (Mount, 1987; Mount & Zwernik, 1988) have been most frequently used with adults. A third process entitled the "McGill Action Planning System" (MAPS) (Forest & Lusthaus, 1987) has been used primarily with school-age children and

focuses on their inclusion, participation, and learning in regular education classes and other typical school settings. MAPS provides a planning framework for operationalizing the assertion that each student belongs (Flynn & Kowalczyk-McPhee, 1989; Hanson, 1987). Common to each of these new approaches to individual planning are five assumptions.

Inclusion or Integration The first assumption asserts that all individuals should be educated in typical school and community environments, including regular classes, and should be provided with the supports necessary to learn and function within these settings successfully. The majority of instruction for elementary aged students should occur in regular classes whereas secondary aged students should receive instruction in both regular education and general community environments (Ford & Davern, 1989; York & Vandercook, 1989). Inclusion is important for two fundamental reasons: 1) each person has a basic need to belong (Brandt, 1988), and 2) it is to everyone's benefit to create schools that welcome and support all individuals as valued members. Diversity enriches "the experience of learning for the children and for those who teach them" (Safford, 1989, p. 11).

Individualization The assumption of individualization recognizes that each student has unique needs, interests, and abilities and that the educational plan developed for each person should reflect these attributes. The supports required (e.g., adaptations of curricular goals or materials or personal assistance) are individualized also.

Teamwork and Collaboration Considerable attention is given to the importance of collaborative teamwork in the first section of this chapter and throughout the book. The MAPS process (described in the next section) is an example of a planning strategy that capitalizes on the creativity, perspectives, and experiences of both children and adults who know and care about the individual for whom the planning is to occur.

Flexibility Flexibility underlies all successful planning efforts and acknowledges that people and environments are not static but continually change and grow. Ongoing problem solving and planning will be necessary as the individual acquires new skills and as members of the school community learn how to better include, teach, and support all children in the school. For example, prior to full inclusion in regular school life, the team can only project needs and adaptations. It is only after the child is actually included in regular school life that performance-based programming decisions can be made.

Natural Supports A final and unifying assumption of individualized planning is the use of natural supports. Natural supports in the classroom are considered to be the classroom teacher and classmates in that they are the people typically present. Their involvement must be recruited for at least two reasons (York & Vandercook, 1989). First, classmates and the regular education teacher know about the demands, expectations, and opportunities in a regular class. They are in the best position to make these known to another student and to reinforce behavior changes and accommodations made by a student. Second, education and human service systems do not have and will not have the capacity to provide a paid service provider for every individual who needs support in every integrated school, community, and work environment. To some extent, all people are dependent on others around them. As Lynch (1989) stated, "It is a mistake to have independence as a goal because we can not survive without others. We thrive on interdependence, this is community" (p. 1). By promoting the involvement of classmates as natural supports, students with high needs will have a greater probability of inclusion in future community environments also.

MAPS—A COLLABORATIVE TEAMWORK STRATEGY

Team members involved in MAPS planning were delineated previously (see Team Member Roles section). An additional person may be identified to serve as the facilitator. As a point that bears emphasis, the involvement of classmates who know and care about the individual is a unique and essential feature of the MAPS process. Since many students have a history of education in segregated classes, MAPS should not be conducted until the individual has been a member of the class long enough to get to know some of the classmates and for the classmates to get to know the individual. The classmates who participate in the MAPS planning are typically identified by the classroom teacher based upon interest as demonstrated by the amount of interaction the students have with one another. At least two, and preferably three to five classmates, participate in the planning. For kindergarten and first grade children, participation may be limited to select questions, and planning sessions may be broken down to three 1 hour sessions versus two 1½ hour time blocks. Planning usually occurs in one or two sessions and approximately 3 hours should be designated for working through the process.

The MAPS Process

The following overview is reprinted by permission from Vandercook et al. (1989, pp. 207–208):

Participants are arranged in a half-circle with the facilitator positioned at the open end of the circle. The information and ideas generated during the process are recorded on large chart paper which serves as a communication check during the session and as a permanent record when the planning is finished. The facilitator can also serve the role of

recorder or an additional person can serve in that capacity. The facilitator needs to be a person who is committed to building an integrated school community in which the individual is valued and provided the support necessary to be a member of the class with same-age peers. The facilitator needs good listening skills and an ability to facilitate interaction among team members in such a way that they challenge one another to broaden their visions of community, and must also make practical suggestions regarding the support and adaptations necessary to meet the needs of the individual in regular class settings and other typical school and nonschool environments. The facilitator must be comfortable interacting with both the adults and the children and able to solicit input from all participants. The best planning will occur for the individual when input is gathered from all participants and conversation is not dominated by a select few. The importance of *each* person's contribution should be clearly communicated by the facilitator before the planning begins. Following are the seven key questions and a final reflection which comprise the MAPS process.

What Is the Individual's History? Aside from the individual for whom the planning is occurring, family members are the most important members of the circle because they typically know the individual better than anyone else. Because of this, family members, and the individual to the greatest extent possible, are asked to spend a few minutes talking about the individual's history, including some of the key milestones in the person's life.

What Is Your Dream for the Individual? The question, "What is your dream for the individual?" is intended to get people to think about their vision for the individual's future. They are encouraged to think about what they want and what they think the person would want for his or her future. This vision should not be based solely on current realities. Dreams can become reality if there is a shared vision and commitment to strive for that vision. In the realm of dreams, the only certainty is that if you cannot dream it, you will not achieve it. The dream question forces the team to think about the direction in which the individual is heading. This allows concrete plans to be made for realizing the vision. This is not to say, however, that the vision or the plans for achieving the dream are set in concrete. The visions and resulting expectations will be challenged continually as more is learned about how to facilitate inclusion in the school community and as positive outcomes are realized. Depending upon the age of the individual, it may be difficult to think about the dream for the individual as an adult. If that is a problem, team members can be encouraged to think about the person 5 years from the present time or perhaps when the individual is in high school. The important factor is not how far into the future the vision projects, but simply that a dream exists for an integrated future, thereby providing direction and goals to strive toward.

What Is Your Nightmare? The question, "What is your nightmare?" is a difficult question to ask the parents of any child, yet an extremely important one. Parents frequently relate the nightmare as a vision of their child being alone. The nightmare presents the situation that the members of the individual's team and others who care for him or her must work very hard to keep this from happening.

Who Is the Individual? Everyone in the circle participates in responding to the question, "Who is the individual?" The participants are asked to think of words that describe the individual (i.e., what comes to mind when they think of the person?) There are no right or wrong words. Participants take turns going around the circle until all thoughts have been expressed. Participants can pass if nothing comes to mind when it is their turn to supply a descriptor. When the list is complete, the facilitator asks certain people to identify the three words from the list that they feel best describe the individual. Frequently, family members and classmates are asked to identify key descriptors.

What Are the Individual's Strengths, Gifts, and Abilities? So often when educational teams get together, they dwell upon the things that the individual cannot do as opposed to identifying and building upon the strengths and abilities of the individual. The facilitator asks the participants to review the list that described the individual as a way to identify some of his or her strengths and unique gifts. In addition, they are instructed to think about what the individual can do, what he or she likes to do, and what he or she does well.

What Are the Individual's Needs? "What are the individual's needs?" is a question that provides an opportunity for all the team members to identify needs from each of their unique perspectives. When the list of needs is complete, family, friends, and educators are asked to prioritize the identified needs.

What Would the Individual's Ideal Day at School Look Like and What Must Be Done to Make It Happen? MAPS is a process that is intended to assist teams to plan for the full inclusion of students who have typically been excluded in regular age-appropriate classes. The framework used in addressing this issue will depend upon what the individual's current day at school looks like. If the schedule of activities for the individual is discrepant from that of his or her peers, initial planning would begin by delineating the schedule of each and, as a team, reviewing the rationale for those differences. For instance, if a student is being sent to a special education classroom for a certain subject such as math, the team should consider whether the individual's needs in math could be addressed in the regular class or in another typical school setting such as the school office or library. The bottom-line question to be asked is, "Does the individual need special, separate space shared only with others who are ascribed similar labels to meet his or her educational needs?" (York & Vandercook, 1989, p. 24). For some students there may not be large discrepancies between their schedule and that of their peers. However, the quality of their involvement may not be adequately meeting their unique needs. This presents a second area for team brainstorming: how is the individual participating in various activities, what educational goals are being addressed, and is the individual's participation in the activity of benefit to them? Planning for the supports needed to achieve successful inclusion must be an overarching question that team members frequently address. One final question for the team to consider in contemplating the ideal day is, "Are the priority needs of the individual able to be addressed in the school community?" As an example, as individuals reach secondary age, some needs may be best addressed via instruction in general community environments and vocational settings outside of the school.

MAPS in a Word The last request by the facilitator provides an opportunity for feedback specifically related to the process itself and as such, should always be included. The facilitator asks each person to describe, in one word, the MAPS process. The adjectives supplied by team members are usually positive and affirming of the process and the time they have spent planning together. However, this is also an opportunity to share impressions or feelings that may not be completely positive. A classroom teacher once put forth the word "pressure" when asked to describe MAPS in a word and then went on to explain that she considered herself a Type A personality and as a result, was feeling that all of the wonderful ideas generated during the process should be implemented right away. This provided the opportunity for other team members to assure the teacher that it was not their intention for everything to be in place by the end of the week. Together the team immediately prioritized actions to be initiated, identified persons responsible, and established reasonable timelines for implementation.

Mary's MAPS

An example of the MAPS planning process is provided to clarify and enrich the previous description of the process. A more detailed discussion of the MAPS process, including modifications that have been used for secondary age students, can be found in Vandercook et al. (1989). Mary is an 8-year-old child who attends the regular elementary school in her home town. Prior to the 1988–1989 school year, Mary was served in a self-contained special education class in a neighboring

2.124

community. As part of a school district effectiveness project designed to increase the inclusion of students into their school community, Mary was enrolled in the third grade in her home school this year. Toward the middle of the school year, Mary's educational team participated in the MAPS process in an effort to collaborate more effectively in addressing Mary's needs in typical school activities and environments.

For Mary's MAPS, the team included Mary, her mom (Linda), dad (Mike), three third grade friends (Nick, Sara, Alisha), third grade classroom teacher (Ellie), music teacher (Ray), special education teacher and integration facilitator (Cheryl), speech and language therapist (Bill), teaching assistant (Vonnie), certified occupational therapy assistant (Karen), exercise consultant (Marilyn), and building principal (Gary). The facilitator and the team met after school and into the evening (with a pizza break halfway through) and worked their way through the questions that comprise the MAPS process. The planning session began by having each person in attendance introduce themselves and state their relationship with Mary. Following is a summary of the discussion and information generated related to Mary for each specific question in the MAPS process.

What Is Mary's History? Mary's dad, Mike, identified the members of Mary's family and then continued by sharing some major events in Mary's history. Mary was thought to be progressing normally until age 2. Following a couple of examinations at medical centers, it was communicated to Mary's parents that she had limited intellectual capabilities. Mary began attending a special preschool when she was 3 years old. This school year Mike said the family had really seen Mary "opening up" and acting much more cheerful. He attributed that to Mary's classmates and the modeling they provided. In contrast, Mary's models in the self-contained classroom had been limited and consisted primarily of adults. Mike also related how nice it was for Mary to be in her *home* school.

What Is Your Dream for Mary as an Adult? Mike and Linda's dreams for Mary included that she be as self-sufficient as possible, learn how to speak better and be able to communicate with more people, be happy, and be more active both in and outside of school. Other team members also shared dreams such as friends calling Mary and asking her to go to a movie with them or out for a burger. They also envisioned Mary initiating inclusion with her friends and participating in community education offerings, such as recreation swimming or T-ball, with natural community supports. Increased communication between Mary and her friends and greater participation in general community activities was a consistent theme throughout the dream discussion.

What Is Your Nightmare? Mike and Linda's nightmare was Mary returning to a separate program, apart from her peers; an event they thought would lead to her being alone. Other members of the team also shared some of their nightmares regarding Mary's future—being called a name, retreating into a shell, not developing her full potential, being ignored, and ending up in an institution.

Who Is Mary? Mary's team generated an extensive list of descriptors: neat person, does what she's told, easy going, helpful, third grader, animal lover, warm smile, loves her friends, enjoys her classroom, loving, enjoys the bus, excited, screamer, enjoys Mrs. Anderson, bossy, fun, cute, headstrong, likes babies, follower, shy, stubborn, manipulator, book lover, hearty giggle, easily frightened of things she can't see, likes to eat, and a friend.

What Are Mary's Strengths, Gifts, and Abilities? Mary's planning team identified the following strengths, gifts, and abilities: likes to be read to, likes to eat, likes gym, likes fishing with dad, likes her brother--talks about him a lot--learned to use the public library, likes to play outside (chase boys), likes to laugh, likes to listen to audiotapes, loves outdoors, likes to draw, has a way with animals and with friends, likes to look at pictures, likes to swing, likes art, likes to watch other kids, likes music class, likes to use scissors, likes to have fun, likes to hug, likes her friends, likes to help and is good at following directions, likes being in her reading group, likes to walk, and likes to go home at the end of the day. Reviewing the responses to this and the previous question underscores one of MAPS most valuable features; a focus upon the person's capabilities and an appreciation of his or her unique characteristics. Such a positive orientation assists in designing a hopeful future.

What Are Mary's Needs? The discussion was first opened up for general responses from all of those present. Family, friends, and educators were then asked to identify the needs from the list that they considered priorities. Priority needs identified by family members, friends, and educators are listed in Table 1.

What Would Mary's Ideal Day at School Look Like and What Must Be Done to Make It Happen? Mary's team briefly reviewed and discussed her schedule of activities and that of her third-grade classmates. Based upon that discussion, several recommendations were made. The first recommendation was for the team to identify alternative goals and activities for Mary to engage in while her classmates did independent, quiet seatwork (e.g., taking spelling tests, completing work sheets). The primary concern was that Mary be as productive and learn as much as possible during the school day. The two key questions addressed by the team were: 1) during which activities could Mary work on alternative

Table 1. Mary's priority needs identified by family, friends, and educators

Family	Friends	Educators
Needs directions from classmates as well	Needs responsibility	Needs responsibility
Needs more friends	Needs directions from classmates as well	Needs love
Needs love	Needs more friends	Needs more independence —getting dressed —taking bath —more communication —running
Needs to learn more appropriate ways of initiating communication	Needs fun things	Needs to learn how to say more words
Needs positive reinforcement (to cheer her on when she does something right)	Needs teachers to help her	Needs to respond physically to music—keep the beat and use instruments
Needs to learn that money has value	Needs love	Needs discipline—consistent expectations
Needs to learn how to say more words	Needs a lot of attention	
Needs to be in a regular third grade class	Needs to learn more appropriate ways of initiating communication	
Needs to learn how to write name and address	Needs goals and guidelines	
Needs homework	Needs positive reinforcement (to cheer her on when she does something right)	
	Needs more independence —getting dressed —taking bath —more communication —running	
	Needs to learn that money has value	
	Needs to learn how to say more words	
	Needs to stay steady when walking	
	Needs to respond physically to music—keep the beat and use instruments	
	Needs to be in a regular third grade class	
	Needs to learn how to write name and address	
	Needs homework	
	Needs discipline—consistent expectations	

goals while maintaining the same format (e.g., individual seatwork) as her classmates?, and 2) during which activities should Mary engage in an alternative activity in the classroom or elsewhere in the school?

The second recommendation was to determine appropriate speech therapy consultative and direct intervention strategies related to Mary's

communication needs in her regular class. Much of the discussion centered around communication needs because Mary only uses a few words and has no augmentative system in place to expand her repertoire. The team decided that use of a picture communication system would be explored for Mary. Reading time was identified as a good time for the speech therapist to observe Mary and her interactions with both the teacher and her classmates. During reading, Mary functions in a group (her assigned reading group), with a partner (looks and listens to story tapes with a classmate), and independently (looks at a book or magazine at her desk and practices writing her name). Additional communication development ideas included selecting a "word of the week" that would be communicated to members of Mary's class and others in the school with whom she had frequent contact. The principal suggested that words such as "please" and "thank you" might be good words because there is a strong emphasis on using good manners in the school and because they are expressions that engender positive feelings toward the person using them. Mary would not necessarily learn how to verbalize those words, but could be taught to point to a card with the words written on them or learn the sign language expression for certain words. The team also thought Mary should be assisted to contribute during class sharing time on Monday and Friday.

Finally, the team recommended that efforts to connect Mary with her peers outside of the regular classroom be continued. Arrangements had already been made to get Mary on the regular bus schedule and the team suggested that joining a Girl Scout troop should now be explored.

MAPS in a Word The last request of the facilitator was to ask everyone to describe in a word what they thought of the MAPS process. The following list of descriptors was generated: creativity, thought-provoking, programmability, helpful, informative, sharing, challenging, collaboration, caring, and encouraging. In closing Mary's MAPS session, the facilitator wrote the following words at the bottom of the last sheet of paper: "No man is an island." These are the words of the title of a song sung by the third-grade class as part of their end of the school day routine. The last stanza of the poem written by John Donne is as follows:

> We need one another,
>   So I will defend
> Each man as my brother,
>   Each man as my friend.

It is the collaboration of those on Mary's team and the connections she is making with those in her home school community that will work to ensure that she not become a person stranded upon an isolated island.

Concluding Thoughts on the MAPS Process

The MAPS process provides a common vision and road map for all team members. Following the MAPS planning, parents have reported a sense of renewed hope in hearing team members share dreams and visions of a life of inclusion for their child. One parent was thrilled to hear the principal describe his child as 1 of 356 important and special children in the school! The fear and hurt expressed by parents in relating their nightmare is poignant and seems to deepen the commitment of all team members to work diligently to avoid its realization. The adults on the team often communicate a sense of relief at having the opportunity to openly communicate their nightmares, their perspective on the student's needs, and their ideas on priorities for creating the "ideal" school day. There is reassurance in acknowledging openly that the "ideal" day will never live up to its name, but rather will always be in a state of evolution as different priorities are targeted over time.

The inclusion of classmates in MAPS sessions consistently receives the largest amount of positive comment. In addition to ideas and offers of support to better connect the student in school activities, numerous opportunities for connecting with classmates outside of school have been suggested and implemented by classmates. Reports of reciprocal home visits, party invitations, and telephone calls are increasing in frequency and graphically illustrating the importance of relationships. When outlining the needs of the individual during the MAPS process it has been peers and siblings who have identified the following needs not typically heard in traditional individual planning meetings: the need for love, more friends, teachers' acceptance, others to know the individual is not helpless, and a good life!

FACILITATING INCLUSION IN REGULAR CLASSES

To the greatest extent possible, supports that are typically available in regular classes (e.g., classmates) should be used if students require individualized adaptations. However, in order for some students to be included in a regular classroom and to have their needs met in that setting, additional adult support may be necessary. When an adult provides physical support to a student in the classroom, a great deal of caution must be exercised to prevent conveying the message that if the student needs help, the support person always will provide the assistance. This can prevent interactions with natural support personnel, build dependence, and prevent skill acquisition by the classmates and classroom teacher. The support person should be viewed as an adaptation to the environment and like all adaptations, should be faded if and when it is appropriate. This is not to say that additional support is not needed but that natural supports exist and should be utilized to the greatest extent appropriate. If needed, the responsibility of the adult who provides additional support is to facilitate the membership, participation, and learning of all students in regular classes and other integrated school settings. To serve effectively in this role, several guidelines are offered.

Guidelines for Facilitating Inclusion

Know Why the Student Is in the Regular Classroom It is important to know why the student is in the regular classroom and to communicate why to students and fellow professionals. First, in order to support effectively the learning and participation of an individual in a regular class, one must be cognizant of both the overall and the student specific educational goals. Second, the majority of adults and students will have a history of separation from some individuals, particularly those with significant disabilities, and will not automatically understand the rationale for the movement from education in separate environments to education in regular classes. Students are included in regular classes because by growing up and learning together those with disabilities and their peers without disabilities have the opportunity to learn the skills, values, and attitudes necessary for positive interdependence. Through participation in integrated schools and communities, students with and without disabilities can experience the richness of a society that values and includes all its citizens.

Know Why the Additional Support Person Is in the Regular Classroom It is also important to know why the additional support person is in the regular classroom and to communicate why to students and fellow professionals. This applies to any person who provides additional support to the classroom above that typically available. The reason for his or her presence is to facilitate inclusion and learning in the class. The ultimate goal is to recruit natural supports so that the additional support person can be faded, at least intermittently.

Empower the Student to Be an Active Participant in All Classroom and Other School Activities Being included in the regular class does not mean that all students in the class have the exact same goals for each learning activity. As an example, when playing a math facts game in the classroom, the questions asked of students could be individualized and might include number recognition for some, addition facts for others, and multiplication facts for still others. The important point is that each child is actively involved in a way that is educationally beneficial for him or her.

Do Things with Instead of for the Individual When the student needs assistance, do things with instead of for him or her. This is a difficult practice with any child, but especially with a student who has high needs. The tendency is to do the activity or skill for the student rather than to modify the activity and assist the child to participate as independently as possible. Doing for instead of doing with the student may be more expedient in the short run but does not provide the student with an opportunity to acquire skills and become proficient. Team decisions are made regarding how to provide assistance so that active participation is achieved. This practice not only benefits the individual student, but provides a model of interaction for the individual's peers to follow. Sometimes classmates lend too much assistance also.

Include the Student in Conversations and Never Talk about a Student in Front of Him or Her The student should be included in conversations. Furthermore, never talk about the student in front of him or her. This is not to say that it is unacceptable to talk about a student when he or she is present, but just not in a manner that discounts his or her presence and treats the student as if he or she were invisible and incapable of contributing to the conversation. Many students understand to a greater degree than they are able to communicate.

Consider the Age-Appropriate Expectations of Classmates and Treat the Student Similarly It is important to consider the age-appropriate expectations of classmates and treat the student similarly. This item does not refer to academic expectations. The fact that most third graders learn cursive writing does not mean that expectation must be met by each child in order to be considered a member of the third grade. Rather, this guideline refers to the social mores and ways of interacting with a student that are consistent with those used with the same-age peers of a student. Social mores include adhering to the same school and classroom rules, as well as the way that adults interact with children. If the school rules say no running in the hallway and a student who uses a wheelchair is caught racing down the hallway, the consequence should be the same (e.g., go back and try it again, slowly this time). If high school age students are typically referred to as Joe, Sam, and Sue, as opposed to Joey, Sammy, and Susie, then that same practice should be followed with all students.

Provide Ways for Classmates and Teachers to Interact with the Student The additional support person who may spend time in the classroom working directly or indirectly with a student should be a model for classmates and teachers. When a student first becomes a member of a regular class, the support person may know the student better than the classroom teacher or the student's classmates. Demonstrating ways to communicate with the student and setting up situations that require interaction between classmates can help to facilitate interactions so that the student is participating actively.

2.127

Know School and Classroom Rules The support personnel operating in the school community needs to know school and classroom rules and abide and enforce them as any staff person would. The importance of all children being expected to follow the school and classroom rules was discussed previously. This item refers specifically to the importance of support personnel knowing, following, and enforcing school and classroom rules that are in place for both students and staff. Following and enforcing a common set of rules promotes membership in the school community.

Be a Part of the Class by Working with All Students Although support personnel (professional and paraprofessional) are in the classroom because the unique needs of an individual student require consultation and additional support, it is not necessary for that service to be provided only in a one-on-one fashion. In fact, a group lesson is a much more effective structure in which to teach certain skills. By working with other students, the paraprofessional may make it easier for the classroom teacher to work directly with the student as well. For example, a teaching assistant might give a spelling test to a large group of students in the classroom, thereby freeing the classroom teacher to work with a small group of students (including a student classified as having disabilities) on a new computer program.

Watch Classmate and Teacher Reactions to Disruptive Behaviors by the Student In facilitating the inclusion and learning of an individual in the regular class, the support person must be sensitive to any behaviors displayed by the student that might disrupt the teaching or the learning taking place in the classroom. Then the support person should respond accordingly and problem solve on the spot. If a student engages in behavior discrepant from that of classmates (e.g., whining or verbally protesting when he or she must physically move from one place to another), the reason for this behavior should be explained to the other class members (e.g., Tim protests when he has to move from his desk to the reading table because it is hard work for him to walk and it is also scary because he has to count on people to do a good job of helping him so that he doesn't fall). Once classmates understand why the discrepant behavior occurs, frequently they can ignore it. In fact, when several students were asked whether the noise of their classmate was disruptive, they responded, "Oh Tim makes those noises because walking is hard for him and kind of scary but he's getting better at walking so someday it won't be so scary." There are times when a student's behavior may be disrupting others and depending upon the situation, the classroom teacher, classmates, or a support person should deal with that behavior in a manner instructive for the individual while at the same time stopping the disruption. In responding to discrepant behaviors, the support person should be cognizant of others' reactions. In many situations, the behavior may be disconcerting to the support person but of seemingly little interest to classmates.

Regular Classroom Integration Checklist

In an effort to operationalize, in an easy to access format, the guidelines for facilitating inclusion in regular classes, the authors and their colleagues developed a checklist (see Figure 1) that delineates components reflective of regular class membership. The checklist has been used by adults on planning teams to assist in identifying ways to include classmates with high needs in regular class activities and routines. The checklist is divided into four sections, each of which questions a different aspect of inclusion. The questions in the first section, "Go With The Flow," are intended to examine whether the student is following the regular sequence of events and routines (i.e., is the student in step with his or her classmates?). The items that ask whether the student enters and exits the classroom at the same time as his or her peers are particularly critical for older students who switch classes regularly. Classes are disrupted when someone always arrives late. Furthermore, if always arriving late, the student is deprived of the opportunity to engage in the all important socializing that takes place right before the bell rings. If it takes a student longer to change classes, arrangements should be made to leave class a few minutes early or to get some help from a friend in moving more quickly between classes.

The second section is entitled, "Acting Cool" and refers to how the student participates in classroom activities. Is he or she actively involved? When necessary, how is assistance provided? An important aspect of every student's social learning is the opportunity to "deal appropriately with helping, being helped, or indicating that no help is needed" (Salford, 1989, p. 312). The point to be emphasized is the need for each student to not only receive assistance, but also to provide it to others. A necessary condition for the successful inclusion of any individual in an educational program is that he or she is able to contribute to the program and the program is able to contribute to the individual (Meisels, 1977).

"Talking Straight" designates the third section that focuses on the communication between a student and his or her classmates and teachers. Interpersonal communication is essential for emotional development (Dupont, 1989) as well as general functioning and participation in the school and general community. For students who communicate in ways other than verbal language, classmates and teachers may need assistance in learning how to communicate using a different system

---

Directions: Record a 'y' for yes and an 'n' for no on the blank preceding each item. If the answer to any of the items is 'no' your team may wish to consider whether any changes should be made and what those changes might be.

GO WITH THE FLOW:

____ Does the student enter the classroom at the same time as classmates? ____

____ Is the student positioned so that she or he can see and participate in what is going on? ____

____ Is the student positioned so that classmates and teachers may easily interact with him or her (e.g., without teacher between the student and his or her classmates, not isolated from classmates)? ____

____ Does the student engage in classroom activities at the same time as classmates? ____

____ Does the student make transitions in the classroom at the same time as classmates? ____

____ Is the student involved in the same activities as his or her classmates? ____

____ Does the student exit the classroom at the same time as classmates? ____

ACTING COOL:

____ Is the student actively involved in class activities (e.g., asks or responds to questions, plays a role in group activities)? ____

____ Is the student encouraged to follow the same classroom and social rules as classmates (e.g., hugs others only when appropriate, stays in seat during instruction)? ____

____ Is the student given assistance only as necessary (assistance should be faded as soon as possible)? ____

____ Is assistance provided for the student by classmates (e.g., transitions to other classrooms, within the classroom)? ____

____ Are classmates encouraged to provide assistance to the student? ____

____ Are classmates encouraged to ask for assistance from the student? ____

____ Is assistance provided for the student by classroom teachers? ____

____ Does the student use the same or similar materials during classroom activities as his or her classmates (e.g., Tom Cruise notebooks, school mascot folders)? ____

BEST COPY AVAILABLE

(e.g., communication board, sign language, or facial expressions and gestures).

The last section is titled "Looking Good" and is an acknowledgment of the importance that an individual's appearance plays in the acceptance by classmates (Hallinan, 1983) and adults in the school. Appearance is judged by good personal grooming habits as well as wearing clothes and using accessories that are in style.

The primary use of the checklist is as a tool for facilitating team discussion about inclusion in regular classes. A "y" for yes and an "n" for no are placed in the blank preceding each question. The blank lines following the item are to be used to record examples of compliance or lack of compliance for each item. These brief notes are helpful to the team when they complete the checklist and reexamine the results to determine if there are priority items to address. When using the checklist related to specific students and classes, team decisions are made as to the applicability of individual items on the checklist.

CONCLUSION

As noted at the beginning of this chapter, the purpose of public education is ". . . to develop maximum potential for leading productive, fulfilling lives in a complex and changing society" (Minnesota Statutes Section, 1985). The Minnesota Legislature was quite astute in recognizing that "developing maximum potential" was not only a matter of acquiring knowledge and skills, but also developing a positive attitude toward self and others. This is a key concept precisely because society is so complex and ever changing. Interdependence is a fact of life. Everyone needs one another, each with individual abilities and needs, in order to function in the community and feel a sense of belonging and power. The development of positive attitudes and the recognition of the strengths and value of each individual can only occur when students have the opportunity to grow up together with the expectation and modeling of acceptance and support for each member of the school community.

As school communities become more inclusive, a greater degree of collaboration will necessarily develop. Expanding traditional team planning approaches to include classmates of students in need of assistance and support marks an important point in the evolution of program development and implementation. Presented in this chapter are several strategies intended to capitalize on the involvement of classmates as team members. The classmates and friends of today are the community members, co-workers, and friends of tomorrow. By promoting interde-

Figure 1 (continued)

TALKING STRAIGHT:

___ Does the student have a way to communicate with classmates?

___ Do classmates know how to communicate with the student?

___ Does the student greet others in a manner similar to that of his or her classmates? ______

___ Does the student socialize with classmates? ______

___ Is this facilitated? ______

___ Does the student interact with teachers? ______

___ Is this facilitated? ______

___ Do teachers (e.g., classroom teachers, special education support staff) provide the same type of feedback (e.g., praise, discipline) for the student as for his or her classmates?

___ If the student uses an alternative communication system do classmates know how to use it? ______

___ If the student uses an alternative communication system do teachers know how to use it? ______

___ Is the system always available to the student? ______

LOOKING GOOD:

___ Is the student given the opportunity to attend to his or her appearance as classmates do (e.g., check appearance in mirror between classes)? ______

___ Does the student have accessories which are similar to his or her classmates (e.g., oversize tote bags, friendship bracelets, hair jewelry)? ______

___ Is the student dressed similarly to classmates? ______

___ Is clothing that's needed for activities age appropriate (e.g., napkins instead of bibs, 'cool' paint shirts)? ______

___ Are personal supplies or belongings carried or transported discreetly? ______

___ Is the student's equipment (e.g., wheelchair) kept clean?

Given the opportunity (and assistance as needed):

___ Is the student's hair combed?

___ Are the student's hands clean and dry?

___ Does the student change clothing to maintain a neat appearance?

___ Does the student use chewing gum, breath mints, breath spray?

BEST COPY AVAILABLE

pendence among peers in schools today, there is greater hope for more inclusive communities tomorrow.

REFERENCES

Biklen, D., Corrigan, C., & Quick, D. (1989). Beyond obligation: Students' relations with each other in integrated classes. In D.K. Lipsky & A. Gartner (Eds.), *Beyond separate education: Quality education for all* (pp. 207–221). Baltimore: Paul H. Brookes Publishing Co.

Brandt, R. (1988). On students' needs and team learning: A conversation with William Glasser. *Educational Leadership, 45*(6), 38–45.

DiFerdinando, R. (1987, October). *An administrator's perspective on the value of peer support networks.* Paper presented at Vermont's Least Restrictive Environment Conference, Burlington.

Dupont, H. (1989). The emotional development of exceptional students. *Focus on Exceptional Children, 21*(9), 1–10.

Flynn, G., & Kowalczyk-McPhee, B. (1989). A school system in transition. In S. Stainback, W. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of regular education* (pp. 29–41). Baltimore: Paul H. Brookes Publishing Co.

Ford, A., & Davern, L. (1989). Moving forward with school integration: Strategies for involving students with severe handicaps in the life of the school. In R. Gaylord-Ross (Ed.), *Integration strategies for students with handicaps* (pp. 11–31). Baltimore: Paul H. Brookes Publishing Co.

Forest, M. (1986). Sabrina and Adrian. *entourage, 1,* 111–115.

Forest, M. (1987). Just one of the kids. In D. Schwartz, J. McKnight, & M. Kendrick (Eds.), *A story that I heard* (pp. 55–58). Harrisburg, PA: Pennsylvania Developmental Disabilities Planning Council.

Forest, M., & Lusthaus, E. (1987). The kaleidoscope: Challenge to the cascade. In M. Forest (Ed.), *More education/integration* (pp. 1–16). Downsview, Ontario: G. Allan Roeher Institute.

Giangreco, M.F., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in least restrictive educational settings. *Pediatric Physical Therapy, 1*(2), 55–63.

Glasser, W. (1986). *Control theory in the classroom.* New York: Harper & Row.

Hallinan, M.T. (1983). Commentary: New directions for research on peer influence. In J.L. Epstein & N. Karweit (Eds.), *Friends in school: Patterns of selection and influence in secondary schools* (pp. 219–231). New York: Academic Press.

Hammill, D.D., & Bartel, N.R. (Eds.). (1975). *Teaching children with learning and behavior problems.* Boston: Allyn and Bacon, Inc.

Hanline, M.F., & Halvorsen, A. (1989). Parent perceptions of the integration transition process: Overcoming artificial barriers. *Exceptional Children, 55,* 487–492.

Hanson, J. (1987). Each belongs. In M. Forest (Ed.), *More education/integration* (pp. 95–100). Downsview, Ontario: G. Allan Roeher Institute.

Johnson, D.W., & Johnson, F.P. (1987a). *Joining together: Group theory and group skills* (3rd ed). Englewood Cliffs, NJ: Prentice-Hall.

Johnson, D.W., & Johnson, R. (1987b). Research shows the benefit of adult cooperation. *Educational Leadership, 45*(3), 27–30.

Johnson, D.W., Johnson, R., & Maruyama, G. (1983). Interdependence and interpersonal attraction among heterogeneous and homogeneous individuals: A theoretical formulation and a meta-analysis of the research. *Review of Educational Research, 53,* 5–54.

Johnson, R.T., & Johnson, D.W. (1981). Building friendships between handicapped and nonhandicapped students: Effects of cooperative and individualistic instruction. *American Educational Research Journal, 18,* 415–423.

Kirk, S.A. (1972). *Educating exceptional children.* Boston: Houghton Mifflin Company.

Kruger, L. (1988). Programmatic change strategies at the building level. In J.L. Graden, J.E. Zins, & M.J. Curtis (Eds.), *Alternative educational delivery systems: Enhancing instructional options for all students* (pp. 491–512). Washington, DC: National Association of School Psychologists.

Lynch, B. (1989, March). Barriers to community. *ARC News for Colorado,* p. 1.

Maloy, R.W., & Fischetti, J.C. (1985). School improvement teams: A qualitative perspective. *Educational Horizons, 63,* 164–168.

Meisels, S.J. (1977). *Programming for atypical infants and their families: Guidelines for program evaluation.* Monograph No. 5 of the Nationally Organized Collaborative Project to Provide Comprehensive Services for Atypical Infants and Their Families. New York: United Cerebral Palsy Association.

Minnesota Statutes Section. (1988). As originally passed by Minnesota law 1985, Chapter 240, Section 1, 120.011.

Mittler, P., Mittler, H., & McConachie, H. (1987). Family supports in England. In D.K. Lipsky (Ed.), *Family supports for families with a disabled member* (pp. 15–36). New York: World Rehabilitation Fund.

Mount, B. (1987). *Personal futures planning: Finding directions for change* (Doctoral dissertation, University of Georgia). Ann Arbor, MI: UMI Dissertation Information Service.

Mount, B., & Zwernik, K. (1988). *It's never too early, it's never too late.* St. Paul, MN: Metropolitan Council, Publication No. 421-88-109.

O'Brien, J. (1987). A guide to life-style planning. In B. Wilcox & G.T. Bellamy (Eds.), *A comprehensive guide to the activities catalog* (pp. 175–189). Baltimore: Paul H. Brookes Publishing Co.

O'Brien, J., & Lyle, C. (1987). *Framework for accomplishment.* Decatur, GA: Responsive Systems Associates.

Perske, R. (1988). *Circles of friends: People with disabilities and their friends enrich the lives of one another.* Nashville: Abingdon Press.

Raiche, J.J. (Ed.). (1983). *School improvement: Research-based components and processes for effective schools.* Minneapolis: Educational Cooperative Service Unit of the Metropolitan Twin Cities Area.

Ruttiman, A. (1988, May). She's right where she belongs. *ARCHtype Newsletter,* pp. 12–13.

Safford, P.L. (1989). *Integrated teaching in early childhood.* White Plains, NY: Longman.

Salvia, J., & Ysseldyke, J.E. (1985). *Assessment in special and remedial education.* Boston: Houghton Mifflin Company.

Sapon-Shevin, M. (1988). Working towards merger together: Seeing beyond distrust and fear. *Teacher Education and Special Education, 11,* 103–110.

Scagliotti, L. (1987, December 20). Helping hands: School works to overcome student's handicap. *Burlington Free Press,* Sec. B, pp. 1, 10.

Sileo, T.W., Rude, H.A., & Luckner, J.L. (1988). Collaborative consultation: A model for transition planning for handicapped youth. *Education and Training in Mental Retardation, 23*, 333–339.

Slavin, R.E. (1977). Student team approach to teaching adolescents with special emotional and behavioral needs. *Psychology in the Schools, 14*, 76–84.

Slavin, R.E. (1987a). Ability grouping and student achievement in elementary school: A best-evidence synthesis. *Review of Educational Research, 57*, 293–336.

Slavin, R.E. (1987b). Cooperative learning and the cooperative school. *Educational Leadership, 45*, 7–13.

Snyder, L., Apolloni, T., & Cooke, T.P. (1977). Integrated settings at the early childhood level: The role of nonretarded peers. *Exceptional Children, 43*, 262–266.

Spodek, B. (1982). What special educators need to know about regular classrooms. *Educational Forum, 46*, 295–307.

Strully, J., & Strully, C. (1985). Friendship and our children. *Journal of The Association for Persons with Severe Handicaps, 10*, 224–227.

Turnbull, K., & Bronicki, G.J. (1989). Children can teach other children. *Teaching Exceptional Children, 21*, 64–65.

Van Meter, E.J., & Scollay, S.J. (1984). Excellence and accountability through school site management. *Educational Horizons, 63*, 19–21.

Vandercook, T., Fleetham, D., Sinclair, S., & Rice Tetlie, R. (1988, Winter). Cath, Jess, Jules, and Ames . . . A story of friendship. *IMPACT Newsletter, 1*(2), 17.

Vandercook, T., York, J., & Forest, M. (1989). The McGill Action Planning System (MAPS): A strategy for building the vision. *Journal of The Association for Persons with Severe Handicaps, 14*, 205–215.

Villa, R.A., & Thousand, J.S. (1988). Enhancing success in heterogeneous classrooms and schools. *Teacher Education and Special Education, 11*, 144–154.

Walter, L.J., & Glenn, C.L. (1986). Centralized decision making threatens teacher autonomy. *Educational Horizons, 64*, 101–103.

York, J., Rainforth, B., & Dunn, W. (in press). Training needs for physical and occupational therapists who work with school aged students with severe handicaps. In A. Kaiser & C. McWhorter (Eds.), *Critical issues in preparing personnel to work with persons who are severely handicapped*. Baltimore: Paul H. Brookes Publishing Co.

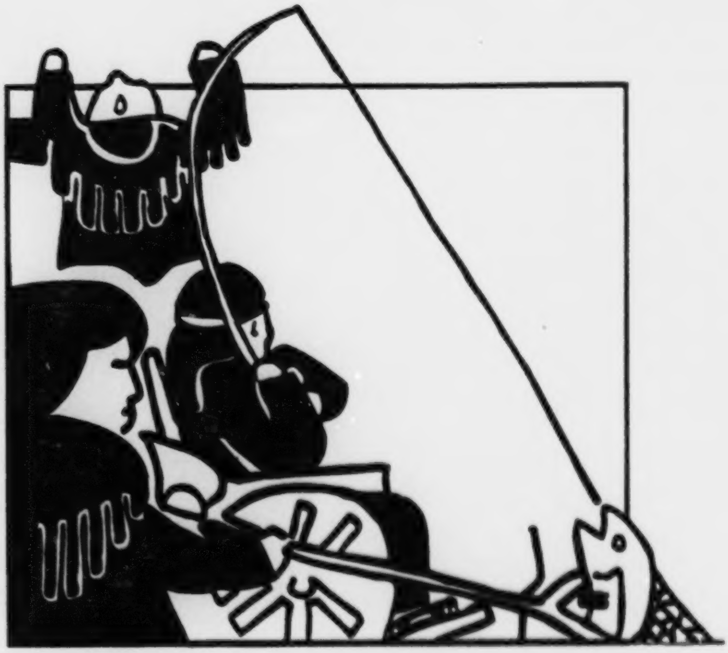
York, J., Rainforth, B., & Wiemann, G. (1988). An integrated approach to therapy for school-aged learners with developmental disabilities. *Totline, 14*(3), 36–40.

York, J., & Vandercook, T. (1989). Strategies for achieving an integrated education for middle school aged learners with severe disabilities. In J. York, T. VanderCook, C. Macdonald, & S. Wolff (Eds.), *Strategies for full inclusion* (pp. 1–20). Minneapolis: University of Minnesota, Institute on Community Integration.

Zins, J.E., Curtis, M.J., Graden, J.L., & Ponti, C.R. (1988). *Helping students succeed in the regular classroom.* San Francisco: Jossey-Bass.

Section 7

CURRICULUM MODIFICATION APPROACH:
Ecological Assessment Strategies

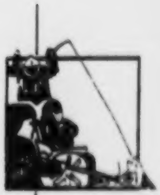


Module Developers:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 7
CURRICULUM MODIFICATION APPROACH: ECOLOGICAL ASSESSMENT STRATEGIES



PURPOSE

Teachers determine curricular areas in a variety of ways. One such method is to look at the settings or environments in which the student participates. Through a systematic look at these environments teachers can identify the activities that are conducted and subsequently facilitate the full inclusion and participation of a student who experiences a disability within these activities and settings. An ecological or environmental assessment allows the teacher and team members a system for identify skills that the student who experiences a disability may need to learn or practice.

LEARNER OUTCOMES

1. Participants will identify the steps in conducting an ecological assessment.
2. Participants will identify one setting/environment in which the student who experiences a disability is in and identify a subsetting/subenvironment. The participants will then identify all the activities that take place in that subenvironment.
3. Participants will describe how a student who does not experience a disability performs the activity. In doing this the participants will conduct a discrepancy analysis.

CONTENT FOCUS

Now that the student who is experiencing a disability is included in your classroom you will want to be a part of a collaborative teaching team who conduct an ecological assessment. Every student participates in assessment or evaluation for one reason or another. The most common reason is to determine current level of performance or functioning.

The most common form of assessment of all students has been some sort of standardized intelligence testing or basic achievement testing. Both of these types of assessment are inappropriate to use with students who experience the most severe disabilities. In fact there is a law that speaks directly to the inappropriate use of assessments for students who experience a disability. In several ways these issues are discussed in readings associated with this module as well as the collaborative teaching teams module.

Nonetheless, educational assessment is very important for students who experience the most severe disabilities. A type of assessment that has been developed and used over the last ten years has been the ecological or environmental assessment. This type of assessment was developed particularly for use with students who experience severe disabilities, however, it can be modified and used with many students who experience differences in their learning styles.

What is Ecological Assessment?

An ecological assessment is a system of looking at the environments in which the child is and assessing the activities and skills that are required in those environments. This type of assessment allows teachers, therapists and parents the ability to look at assessment in a meaningful way. The child is assessed in the setting, with the materials, in the activities that he/she participates in. In addition, the child can be assessed in future environments where he/she should be currently or environments that he/she will find herself in the future.

Key Elements of Ecological Assessment

1. **Ecological assessment use the natural environment.**

The major environment(s) and sub-environment in which the child lives, plays, works are included in this assessment. This is particularly useful for settings in rural and remote locations in Alaska.

Assessing environments relevant to the child, the child's family activities, and the community will increase the likelihood of planning intervention that is referenced to those locations. In other words if the child spends time at a fish camp that setting should be assessed. Likewise, the particular sub-environments within the village school should be assessed as well as the sub-environments in the child's home and community.

These sub-environments will obviously be very different than the sub-environments for a child living in urban Juneau or Fairbanks. There will also be many similarities.

2. **Ecological assessments are activity based.**

As described in the readings, ecological assessments investigate the activities that are conducted in a particular sub-environment.

By their very nature, then, ecological assessments emphasize activities and not isolated testing items. In an ecological assessment the team lists the activities that either occur in the sub-environment or are crucial to participate in the sub-environment.

3. **Ecological assessments assess the child's abilities and skills.**

   The ecological assessment looks at the types of skills that are needed in the particular activity within a given sub-environment. For example, in the environment of the community there is the subenvironment of the lakefront. One of the activities that occurs at the lake is ice fishing. In conducting an ecological assessment, one would want to list all the skills that are required to participate in the activity of fishing. Next, a discrepancy analysis is conducted to see which of these skills the student with a disability currently possesses.

4. **Ecological assessment celebrate the use of natural supports.**

   The current teaching or adaptations that the student with a disability uses to perform the skill within a particular activity are delineated. This process assists individuals to think differently about assessment and actually moves the team towards intervention. strategies, or curriculum modifications that the student will need to perform the skill and activity.

***STOP HERE AND COMPLETE THE READINGS FOR THIS SECTION.**

***COMPLETE ACTIVITY #1 AND #2**

***COMPLETE THE ASSIGNMENT FOR THIS MODULE**

HANDOUT 7.1

STEPS IN COLLABORATIVE ECOLOGICAL ASSESSMENTS

Step 1. **Establish the assessment team.**

Step 2. **Identify assessment priorities from the curriculum.**

Step 3. **Conduct ecological assessments with discrepancy analyses.**

Step 4. **Generate hypotheses about the performance problems.**

Step 5. **Conduct diagnostic/Discipline-referenced assessments.**

Step 6. **Suggest Goals and Objectives.**

Step 7. **Suggest Adaptations and Methods of Intervention.**

Step 8. **Write Integrated Assessment Report.**

Step 9. **Develop Activity Skills Matrix and the Integrated Individualized Education Plan.**

(adapted from Rainforth, MacDonald, York and Dunn, 1992).

OVERHEAD 7.1

Ecological assessment is a strategy that complements more traditional assessments in order to maximize the likelihood that students will leave their public schooling experience so securely embedded in their own communities as active, contributory members, that there is no risk of exclusion and segregation (Jeanchild & Ferguson, 1992).

OVERHEAD 7.2

Students who experience severe disabilities are not always able to use discrete skills when they actually need them to negotiate the practical realities of their daily lives. This difficulty "generalizing the discrete information and skills acquired in school required teachers to think differently about not just how to teach, but what was important in the first place" (Jeanchild & Ferguson, 1992).

FOOD FOR THOUGHT

Traditional approaches to assessment have proved inadequate. (Jeanchild & Ferguson, 1992).

We need ecological assessment to maximize the impact school instruction has on students' lives outside of school. (Jeanchild & Ferguson, 1992).

Ecological assessment is a strategy that complements more traditional assessments in order to maximize the likelihood that students will leave their public schooling experience so securely embedded in their own communities as active, contributory members, that there is no risk of exclusion and segregation (Jeanchild & Ferguson, 1992).

READINGS

Helmstetter, E. (1989). Curriculum for school-age students: The ecological model. In F. Brown & D. Lehr, Persons with profound disabilities: Issues and practices (pp. 239-264). Baltimore: Paul H. Brookes.

Nietupski, J. A. & Hamre-Nietupski, S. (1987). An ecological approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell, (Eds), p. 225-253, Innovative program design for individuals with dual sensory impairments. Baltimore: Paul H. Brookes.

Rainforth, B., MacDonald, C., York, J., & Dunn, W. (1992). Collaborative assessment. In B. Rainforth, J. York, & C. MacDonald, (Eds), Collaborative teams for students with severe disabilities (pp. 105-155). Baltimore: Paul H. Brookes.

SECTION ACTIVITY OR ASSIGNMENT

Activity #1

List all the environments in which the student who experiences a disability either participates in or will participate in the future. Next, list all the sub-environments under each environment.

Activity #2

Choose one sub-environment and list several of the activities that are conducted in that sub-environment. Choose one of these activities. Next, determine the skills that the student will need to participate in this activity. What skills or abilities does the student currently have? What are the teaching or adaptations that need to be made to allow the child to participate in this activity?

Assignment #1:

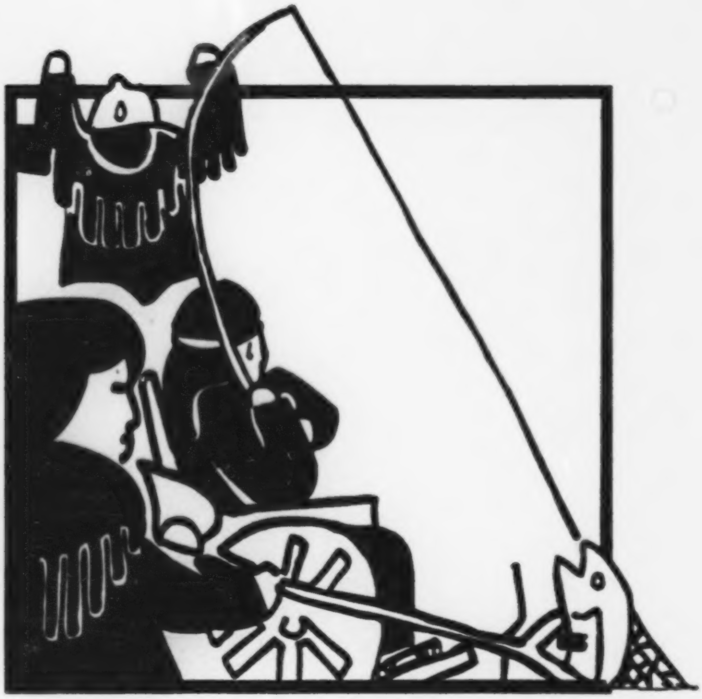
Complete an ecological assessment in two sub-environments for a student who experiences a disability. Make sure to include the routines or activities: the student inventory with discrepancy analysis; and the teaching and adaptation hypotheses. Use the chapter by Rainforth, MacDonald, York and Dunn as a reference. NEXT: Review the assessment report in Rainforth and colleagues. If this is appropriate share with your school psychologist, educational specialists, and special education teacher. What feedback do they offer regarding the application of this type of assessment report to your school program? (Reference Rainforth and colleagues p. 149-154.)

REFLECTIVE JOURNAL

Enter the feedback and reactions that your team offers regarding Assignment #1.

Section 7

CURRICULUM MODIFICATION APPROACH: Ecological Assessment Strategies



Readings

10

CURRICULUM FOR SCHOOL-AGE STUDENTS

The Ecological Model

Edwin Helmstetter

Instructional practices with persons with severe disabilities have shifted from a basic skills model to an ecological approach that emphasizes the preparation of students to function in domestic settings that are located in the community; in integrated competitive work and recreational/leisure environments; and in other generic service environments such as transportation systems, stores, and restaurants. Unfortunately, with only a few exceptions, this model has seen little use with those students with the most severe disabilities. Specifically, these students include those who have inconsistent or no motor movement, who appear to possess very low IQs (e.g., below 15), or who are referred to in such denigrative terms as "medically fragile" (Brown, Helmstetter, & Guess, 1986).

ECOLOGICAL MODEL

Although the ecological model is rarely used with students with the most severe disabilities, it is appropriate for this group of individuals. The ineffectiveness of basic skills training, limited exposure to normal experiencing and every individual's right to equality are three reasons why this is true.

Ineffective Basic Skills Training

Research and practice with students with the most severe disabilities has traditionally emphasized training on basic skills such as bearing weight, reaching, activating a microswitch connected to an attention-getting signal, visual attention, and head control. The rationale for this approach appears to be that basic skills training, while it rarely leads to full independence, will presumably allow

Helmstetter, E. (1989). Curriculum for school-age students: The ecological model. In F. Brown & D. Lehr, Persons with profound disabilities: Issues and practices. P. 239-264. Baltimore: Paul H. Brookes. P.O. Box 10624 Baltimore, MD 21285-0624

2148

students to develop some skills in communication, self-help, and mobility, thereby reducing their dependence on others.

The outcomes of the basic skills approach with this group are similar to the results obtained when used with students with less severe disabilities. That is, upon graduation from high school, students are unprepared to participate in integrated work, domestic, recreational/leisure, and other community settings frequented by their peers. Furthermore, even if certain basic skills that are taught in the classroom are related to functioning in an integrated community setting, students typically do not generalize what they learn in the classroom to the functional contexts in which they must use the skills. This is true even when the classroom conditions simulate functional environments.

Finally, some individuals with the most severe disabilities fail to acquire certain skills when taught in classroom-based programs, even after years of instruction. Given the outcomes of the basic skills approach, educators are obligated to develop alternative instructional models for use with these students.

Limited Exposure to Normal Experiences

Many individuals with the most severe disabilities experience a very small number of normal and stimulating environments. Presumably, they are unaware of their surroundings and, therefore, unable to benefit from them. This disparaging attitude limits the expectations for such students and produces an inaccurate and incomplete information base for educational planning. The practice of limiting students' experiences to self-contained classrooms and other segregated settings because they are unable to profit from normalizing experiences is refutable. Consider the following actual case in which a student, presumably unaware of his environment, benefitted from more normalized conditions.

> Barry suffered brain damage in an accident at his home when he was 2 years of age. Between the ages of 4 and 7, he attended a class for students with severe disabilities that was located in a segregated, special school in a public school system. In terms of basic skills, Barry showed no visual response to light, and only an occasional startle to loud sounds. Physical movements consisted of occasional lip smacking, smiling, and leg jerks. However, these movements were inconsistent and were believed to be associated with seizure activity. He had contractures in his arms, wrists, hips, knees, and ankles. He ate small amounts of pureed food orally at school, but was tube-fed at home. Barry's educational program included, among numerous other objectives, the development of head control and visual attending; however, he made no progress on these objectives in more than 3 years of intensive training and instructional adaptations. At age 8, Barry's special education class moved to a public elementary school where he was in frequent contact with nondisabled peers during homeroom period, lunch, play periods, and in the special education classroom. With no additional training whatsoever, his head control improved fourfold—when his peers were nearby. While keeping his head up, he was consistently alert to the sound of his friends entering the room, and attempted to visually follow their movement. His response to his new social environment was still evident 1 year later.

Barry's case is not unusual. There are many reports of students with the most severe disabilities who are "written off" as being unaware of the world that surrounds them. However, upon closer scrutiny, these students do, in fact, show awareness, as demonstrated by such behaviors as responding "better" for a particular person, or becoming unusually passive when presented with unfavorable activities.

In summary, professionals often underestimate the potential of students with the most severe disabilities to relate to their environments. These limited expectations interfere with the learning and other opportunities that are made available to students just as limited expectations continue to hamper the progress of persons who are less severely disabled.

Equal Rights

Persons with the most severe disabilities have as much right as any other citizen to be a part of the mainstream society. This right is abrogated by segregation in self-contained classrooms, educational programs that limit students' experiences with peers, and provincial schooling that fails to prepare them for adult life in the community.

The remainder of this chapter describes the ecological model that is used with persons with less severe disabilities, and illustrates how the model can be used with individuals with the most severely handicapping conditions. Although the ecological model emphasizes community settings where work, domestic, recreational/leisure, and other activities occur, it is important to remember that the school is also part of the community, and that educators must advocate for integrated opportunities at school, as well as in the community. For example, students with the most severe disabilities should arrive at and depart from school with their friends. They should be in homerooms with other students from their local neighborhoods and with whom they will progress through the school years. They should participate in whatever way that they are able in homeroom functions and in other selected school activities. In general, students with the most severe disabilities should be part of everything that is "school" for nondisabled students (e.g., fundraising events, parent-teacher conferences, field trips, lunch in the cafeteria, assemblies, pep rallies).

Detailed descriptions of the ecological model are presented by Brown, Branston et al. (1979); Brown, Branston-McLean et al. (1979); Brown et al. (1980); Brown, Shiraga, York, Zanella, and Rogan (1984a,b); Falvey (1986); Ford et al. (1984); Nietupski and Hamre-Nietupski (1987); and Wehman, Renzaglia, and Bates (1985). The basic steps that need to be followed when implementing the ecological model are:

1. Identify the integrated settings in the community in each of the following domains: domestic (i.e., residential living), work, recreational/leisure,

and general community use areas (e.g., stores, restaurants, transportation systems, healthcare services).

2. Select specific current and future least restrictive environments in which a student might participate (e.g., corner market, movie theater).
3. Conduct ecological inventories of the current and future environments for the purpose of delineating their subenvironments (e.g., the kitchen is a subenvironment of the home), and for identifying the activities that typically occur in the subenvironments (e.g., washing dishes occurs in the kitchen subenvironment).
4. Establish priorities among the activities and select the highest ranking ones for instruction. The activities selected will constitute the goals of the student's individualized education program (IEP).
5. List the sequence of skills for each activity that was selected that nondisabled persons typically use in order to complete the activity.
6. Conduct a discrepancy analysis for each activity in order to identify how the individual's present skills compare to the skills that nondisabled persons use in completing the activity.
7. Develop individualized adaptations for those skills that the student lacks and is unlikely to learn quickly.
8. For each activity, develop an IEP objective that takes into consideration the results of the discrepancy analysis and the individualized adaptations.
9. Address implementation issues such as scheduling, staffing, transportation, and locating monetary resources.

The remainder of this chapter briefly describes each of the above steps and illustrates how the process might be extended for use with students with the most severe disabilities. The following points are stressed when the ecological model is implemented with persons who are the most severely disabled:

1. There is greater emphasis on partial participation in activities (Baumgart et al., 1982) than on no participation at all. For example, a student who is unable to independently use a vending machine to purchase a snack can partially participate by pushing the selection button after a companion deposits money in the machine. Furthermore, partial participation is interpreted to mean not only active motor involvement in an activity (e.g., pushing a vending machine button, signing a prewritten check with a name stamp), but also relatively passive behaviors that enable the individual to obtain information about the environment (e.g., visual or auditory attending, tolerating noisy or novel settings).
2. The use of adaptations is emphasized (Step 7 of basic steps from the previous section). Adaptations make it easier for students to fully or partially participate in activities, and reduce the need for extensive skill training. For example, for a student with poor motor control, the buttons on a remote control for a television could be covered, a hole cut out for the channel change button, and the device fastened to a surface. These adaptations would eliminate the need for lengthy training on the motor skills needed to hold the remote control and to touch only one button at a time. Furthermore, it would provide the student with immediate control over one aspect of his or her environment.
3. More attention is given to how students respond to settings and activities. This information is then used to identify student preferences. A student's [illegible] might consist of minute responses that previously may have gone unnoticed (e.g., change in muscle tone, averting the eyes), or were observed but regarded as noncommunicative (e.g., tantrums, stereotyped behavior) (See Chapter 7, this volume, for a detailed discussion of identifying communicative responses). Information on the student's preferences with regard to settings and activities should be considered when establishing priorities for selecting various activities for instruction. It is also useful information for parents and residential staff who can then provide the individual with at least access, if not training, to his or her preferred settings and activities. It is recommended that this important process of identifying student responses become a new step in the ecological model (see previous section of this chapter), inserted between the ecological inventory (Step 3) and establishing priorities (Step 4).

Underpinning the first and second adaptations that were just described (i.e., partial participation and the use of technology) is the assumption that partial participation, regardless of its amount, is a valid educational goal. Underpinning the third adaptation (i.e., assessment of student preference for settings and activities) is the assumption that improving one's quality of life is a valid educational outcome, and that quality of life is improved when an individual gains access to situations that he or she prefers, even if participation in these situations is extremely limited.

Identifying Settings in the Community

The first step of the ecological model is to identify the integrated settings that are available in the community. Table 10.1 lists examples of the types of environments that exist in many communities. Resources to identify specific community settings (e.g., French's Cafe, Acme Movie Theater, Supported Living Alternatives) include local newspapers; telephone books; entertainment guides; parent or professional organizations; publications of the state Developmental Disabilities Planning Council; the Chamber of Commerce business directories; the United Way's directory of funded agencies; and directories compiled by state vocational, educational, health, and social service agencies. In addition, a drive or walk through the community is a very useful way to identify businesses, industries, recreational settings, and other community environments in which students might participate.

2.149

2.150

Table 10.1. Examples of types of environments

Domestic
Natural homes
Adoptive homes
Trained foster families with no other disabled persons
Shared apartments or homes with nondisabled adults
Supervised apartments or homes with 1–2 disabled persons
Group homes with five or fewer persons

Work
Stores: grocery, clothing, general merchandise, sports, music, hardware, pharmaceutical, pet
Industries
Libraries
Courthouses
Employment agency buildings
Public health buildings
Mental health buildings
United Way offices
American Red Cross facilities
Service organization facilities (e.g., Lions, Rotary Club)
Parks and Recreation facilities
Fire and police departments
Universities and colleges
Hospitals
Churches and synagogues
Laundromats
Housekeeping services

General community environments
Transportation systems (e.g., bus, subway, taxi)
Intersections (e.g., controlled, uncontrolled)
Restaurants (e.g., fast food, sit down/order, cafeteria)
Grocery stores (e.g., supermarkets, small convenience stores)
Merchandise stores (e.g., clothing, general merchandise, sports, hardware, pet, pharmaceutical)
Service locations (e.g., doctor, dentist, hairstylist, post office, bank)

Community recreational/leisure
Arcades
Nature centers and trails
Arts and crafts classes
Libraries
Cultural centers
Shopping centers
Parks
Movie theaters
Bowling alleys
Fishing ponds
Boating areas
Horseback riding stables
Beaches
Swimming pools
Skating rinks
Spectator sports arenas

Selecting Specific Current and Future Environments

For 5–10-year-olds, more emphasis is placed on current domestic, recreational/leisure, and community use environments and activities, as well as on opportunities for students to make friends at school and in their home communities. As the student approaches 10 years of age, more and more of what is needed in the current environments should overlap with what will be needed in future environments as well.

For 11–21-year-olds, the major emphasis is on what is needed for postschool domestic, recreational/leisure, work, and community use settings, as well as on opportunities to form friendships at school that will carry over into the student's life as an adult.

When selecting an appropriate, specific current or future environment for an individual, the interventionist must take into account that person's domestic, recreational/leisure, work, and general community environments.

Domestic Environment Least restrictive living situations for 5–10-year-old children include the natural or adoptive home, or a foster home in which the parents are trained and have few, if any, other disabled foster children. Unfortunately, many 5–10-year-old children with the most severe disabilities reside away from their home communities, in institutions or other congregate living arrangements. These congregate care programs are inappropriate targets as current environments. Instead, the teacher, social worker, or case manager should identify the least restrictive residential options in the student's home community as the current placement to be inventoried, and advocate for the ir[illegible]l who is most severely disabled to move to such homes. The preferred residential options are the natural home or an adoptive home. For persons who are 11–21 years old, the preferred future living environments are shared apartments or homes with nondisabled persons, supervised apartments, or homes with five or fewer disabled persons.

Recreational/Leisure Environments Recreational/leisure settings exist at home, at school, and in the community. Recreational/leisure environments for 5–10-year-old children are age-appropriate settings in the current home and school, as well as community recreational/leisure settings currently frequented by the students' families. For the 11–21 age group, emphasis is placed upon the recreational/leisure subenvironments found in those individuals' future residential settings, and the environments in his or her community. Also emphasized are the recreational/leisure settings at school that maximize social integration and the development of friendships that might last into adulthood.

Work Environments Future work settings are referenced beginning at age 11 and include: 1) actual community competitive employment sites; and 2) other work situations, such as school jobs and community volunteer work, where students can learn general work skills (e.g., travel using public transportation, maintaining balance while seated in a car enroute to work), and can obtain extra practice on skills required in competitive employment settings (e.g., moving a lever to dump items during a packaging activity) (cf. Chapter 11, this volume).

General Community Environments General community environments for 5- to 10-year-old children should be those settings that the individual can visit from his or her current living environment. For the 11–21 age group, community environments should include those that will likely be visited from the future domestic setting.

Identifying Subenvironments and Corresponding Activities

After the specific current and future environments are identified for a student, the settings are visited, and the subenvironments are delineated. For example, the current recreational/leisure environments that a fictitious student uses or might use would be the Cinerama and Twilight movie theaters, and Eastside park. Future leisure environment[illegible] might be the Cinerama and Twilight movie theaters, the YMCA swimmi[illegible] pool, and Metro Public Library. Future work environments for this individual could include the Metro Public Library and the Memorial Hospital. Each of these environments would be visited in order to identify their subenvironments. Examples of subenvironments of the Cinerama theater are the parking lot, entrance, ticket booth, refreshment area, restroom, and seating area. Subenvironments of the library are the entrance, reference desk, checkout desk, work room, reading area, book shelf area, and current periodicals room.

In addition to listing the subenvironments of each setting, the activities that typically occur in each subenvironment are also delineated. One approach for generating the list of activities is to observe nondisabled persons, and to note the activities in which they typically participate. For example, possible activities that may be conducted in the parking lot subenvironment of the library are entering and exiting an automobile, using sidewalks and crosswalks, locating the library entrance, and placing books in the overnight deposit box.

An activity should not be excluded on the assumption that a student is too disabled to participate in it. For example, in order to return a library book, an individual need not be able to accomplish all of the activities in which his or her nondisabled peer participates (e.g., exiting a car, traveling to the entrance of the library while carrying a book, and placing the book in the deposit box). Instead, the individual can partially participate by holding the book while being taken in a wheelchair to the deposit box, or by indicating the book that he or she wants to return by looking at one of several books held up by a companion.

Further examples of ways in which a student with the most severe disabilities can partially participate in common activities are shown in the following tables. Table 10.2 contains examples of activities (e.g., toileting) that typically occur in some subenvironments (e.g., bathroom) of a domestic setting. The parenthetic information for each activity illustrates how an individual with the most severe disabilities might partially participate if he or she was unable to acquire all of the skills that comprise the activity. For example, the grooming activity of brushing one's hair typically occurs in the bathroom subenvironment of the home. An individual with the most severe disabilities could partially participate in brushing hair by holding his or her head motionless and by not resisting having the hair brushed (see Table 10.2). Other examples are relaxing one's jaw in order to partially participate in tooth-brushing, and learning to tolerate water in order to participate in bathing. Such partial participation is not unlike present instruction in classes for students with the most severe disabilities. The difference here is that learning is validated against what is needed in real-life settings, and instruction occurs in the natural settings.

Table 10.3 contains examples of recreational/leisure activites that might occur in the subenvironments of the home, in community settings, and at school. Ways in which persons with the most severe disabilities might partially participate in these activities is once again illustrated by the parenthetic information. For example, at a sports facility in the community (see Table 10.3, Community), partial participation could involve handing an admission ticket to the ticket collector, increasing the amount of time a person is able to sit at the event, or increasing the individual's visual or auditory awareness of environmental events. Tables 10.4 and 10.5 are similarly structured, but with reference to the work and general community use domains, respectively.

Table 10.2. Examples of activities in domestic subenvironments

Bathroom

Toileting (e.g., indicate need by vocalizing or touching self, maintain balance on toilet)

Brush hair (e.g., hold head motionless while hair is brushed, tolerating having hair brushed)

Brush teeth (e.g., relax jaw while teeth are brushed)

Bathing (e.g., increase tolerance of water or of hair blower, bear weight during dressing, turn water on or off)

Clean mirror or other surface (e.g., turn water on and off, pour soap into water, wipe mirror or surface)

Pick up clothing (e.g., open or close hamper lid)

Kitchen or dining room

Eat (e.g., assist with holding food, cup, utensil, or napkin; tolerate different textures of foods; select food or drink by turning head toward items offered)

Wash dishes (e.g., push food off plates, turn food disposal on or off, push tray into dishwasher, turn on dishwasher)

Put tableware away (e.g., open or close cabinet doors and drawers, push tableware into sorted piles)

Prepare meal (e.g., empty contents of packets; activate blender, food processor, can opener, or timer; turn stove or oven on or off)

Living room or recreational area

Recreational/leisure activities (see Table 3)

Bedroom

Dress (e.g., assist with dressing by lifting head, relaxing arm, bearing weight, flexing ankle, opening or closing drawer, removing items from or placing items in drawer)

Use alarm clock (e.g., awaken to alarm, push alarm button)

Make bed (e.g., pull sheets or bedspread to top of bed)

Straighten room (e.g., open or close hamper lid or dresser drawer, close closet door)

Utility area or work room

Wash clothes (e.g., push clothes into sorted piles, place clothing in or remove from washer or dryer, turn appliances on or off)

Care for tools (e.g., put tools away, wipe work surfaces)

General housekeeping

Clean surfaces (e.g., wipe surface, pour soap into water, turn water on or off)

Empty garbage (e.g., turn trash compactor on or off, push trash into container)

Vacuum (e.g., turn vacuum cleaner on or off)

Care for plants (e.g., tip watering container to water plants)

Outdoors

Plant flowers (e.g., drop seed or plants into holes)

Care for plants (e.g., pull weeds, water plants, snip flowers)

Rake leaves (e.g., turn leaf blower on or off)

As discussed earlier, active partial participation in activities (e.g., dropping a book in a library's deposit box) need not be the only goal; the quality of an individual's life can be improved by participating at whatever level is possible, providing that he or she is willing to participate. This means that for some students it may be appropriate to emphasize visual or auditory attending and tracking behaviors so they can gain more information from the activity and benefit more from being in the settings. For example, a student could learn to visually attend to a mirror placed above an arcade game being played by a compan-

2.152

Table 10.3. Examples of recreational and leisure activities for home, community, and school

Home: Current and future environments

Living room, den, recreation room, bedroom

Play board and table games, such as checkers and foosball (e.g., watch game, move game pieces, move handle of foosball)
Play cards (e.g., watch card game, activate electronic card shuffler, look at cards and signal if a card matches another)
Play computer game (e.g., signal choice of games, activate controls for computer games, watch as sibling plays game)
Read books and magazines (e.g., look at book or magazine, indicate choice of books by looking, activate electronic page turner, activate tape recorder for recorded book, listen to audiocassette of book)
Photography (e.g., operate switch activated shutter, look through camera, look at photograph album, activate electronic page turner with photograph album)
Use home entertainment equipment (e.g., select by smile or by looking at a record, audiocassette, or videocassette; activate controls for on or off, loudness, channel selection, forward or reverse; watch or listen to television, record player, radio, or tape player)
Play a musical instrument (e.g., use keyboard with hands, head, or foot; blow a wind instrument)

Kitchen

Cook (e.g., watch cooking activity; activate blender, food processor, popcorn popper, can opener, timer)

Outside

Care for pet (e.g., accompany animal on walks, pet animal, brush animal, watch animal, move lever to release animal food into dish or tank)
Care for plants (e.g., water or mist plant, turn plant to face sunlight)
Gardening (e.g., pull weeds, drop seeds into holes, water plants with can or hose)

Swimming pool and side of pool

Swim (e.g., tolerate water, remain on or in a flotation device, splash water, bear weight, maintain balance while sitting on side of pool)

Yard

Use playground equipment (e.g., watch other children play, remain in swing, maintain an erect posture while on slide)

Community: Current and future environments

Arcade at shopping center: Game area

Use computer and arcade games (e.g., watch as peers play, move controls)

Library: Magazine and tape browsing area

Read magazines or listen to tapes (see Home section of this table for examples of partial participation with books or tape equipment)

Park: Pathways and picnic areas

Cycling (e.g., tolerate riding in child's seat, maintain balance)
Take nature walk (e.g., accompany peer or adult on walks, look through binoculars or telescope)
Picnic (e.g., assist with eating, choose food or drink)

Theater or playhouse: Entrance, audience, refreshment, and restroom areas

Attend cultural events (e.g., watch event, hand ticket to usher, indicate choice of events, select refreshments, use restroom)

Shopping center or shopping district

Watch people, window shop

(*continued*)

Table 10.3. (*continued*)

Swimming pool: Pool, locker room, and refreshment areas

Swim (e.g., assist with showering, assist with dressing, tolerate water, use flotation device, bear weight, maintain balance)
Purchase refreshments (e.g., select refreshment by looking at picture, hand money to cashier)

Bowling alley: Bowling lanes, restroom, refreshment, and game entertainment areas

Bowl (e.g., watch bowling, push ball off bowling ramp)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)
Play video games (e.g., watch peers play, place coin in machine, move video game controls)

Skating rink: Rink, restroom, and refreshment areas

Skate (e.g., watch skaters, support weight on skates)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)

Pond or lake: Shore area

Fish (e.g., hold fishing pole, pull in fish, open or close fishing tackle or bait box)

Sport facility: Entrance, audience, restroom, and refreshment areas

Enter facility (e.g., hand ticket to usher)
Watch spectator sports (e.g., increase the time that one can watch an event)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)

Stable: Barn and trail areas

Horseback riding (e.g., maintain balance on horse)
Animal care (e.g., dump water into trough, brush horse)

School: Current environment

See Home and Community sections of this table for examples of ways in which students can participate in activities in each of the following subenvironments:

School library
Kitchen or home economics area
Photography laboratory
Greenhouse
Theater
Sport facility
Playground

ion, or to listen to a bowling ball advancing toward its target. For other students, being able to sit for longer time periods at a basketball game or tolerating the noise at a hockey match may be important.

Assessing Student Responses to Environments and Activities

Emphasis up to this point has been on the activities that the student should learn in order to participate in current and future environments. A further consideration is a student's preference toward particular settings and activities. Because

2.153

Table 10.4. Examples of activities in work subenvironments

Stores (e.g., grocery, general, clothing, sports, music, hardware, pharmacy, pet)

Sales and stockroom areas

- Stock shelves (e.g., push on stamp to price cans, boxes; push items into alignment on shelves)
- Bag items (e.g., move lever to dump nuts, beans, pills, and other items for bagging; slide items to companion who bags them)

Display cases, restrooms, and break areas

- Clean surfaces (e.g., wipe windows, mirrors, or counters; add soap to water; turn water on or off)

Break and lunch areas

- Eat snack or lunch (e.g., select refreshment in vending machine, place money in vending machine, assist with eating)
- Look at magazine (e.g., choose magazine, use page turner)
- Listen to tape (e.g., choose tape, tolerate headphones, use microswitch to turn on or off)

General work skills

- Clock in or out (e.g., remove card from holder, hand card to coworker who clocks in the disabled person)
- Use restroom (e.g., assist with toileting, grooming, dressing)

Industries

Work area

- Packaging (e.g., move lever to dump contents for packaging, activate switch to seal package)

Break area

- (see the Stores section for examples)

General work skills

- (see the Stores section for examples)

Offices

(Examples of community sites with offices: stores, industries, libraries, courthouses, employment services, social services, public health, legal services, mental health, Council on Aging, universities and colleges, fire department, religious organizations, United Way, American Red Cross, Lions Club, Rotary Club)

Storage and work areas

- Stock shelves with paper, pencils, paper clips, and other office material (e.g., push items into alignment on shelves)
- Photocopy (e.g., push copier button)
- Shred paper (e.g., release paper into shredder)
- Staple (e.g., move papers on paper holder to activate electronic stapler)
- Collate (e.g., activate electronic collator)
- Sharpen pencils (e.g., activate electronic pencil sharpener)
- Date documents received (e.g., push stamp to date materials)

Libraries

Check out desk

- Process returned materials (e.g., push stamp to cancel books, push books onto cart for reshelving)

Book and magazine shelves

- Reshelve materials (e.g., push materials to align on shelves, hand items to coworker who places them on shelves)
- Clean shelves (e.g., wipe low shelves)

(continued)

Table 10.4. *(continued)*

Restaurants

(Types of restaurants: fast food, cafeteria, sit down/order)

Eating area

- Fill sugar or creamer bowls (e.g., wipe bowls, slide sugar or creamer packets into bowls, slide bowl into position on table, hand materials to coworker who fills bowls)
- Clean (e.g., wipe showcase or table tops, pour soap into water, turn water on or off)

Kitchen

- Fold cloth napkins (e.g., slide napkin to coworker, stack napkins on tray)
- Wash dishes (e.g., pick silverware off of plates, turn dishwasher on)
- Stock shelves (e.g., push items to straighten on shelves)
- Clean (e.g., wipe shelves and counters, pur soap into water, turn water on or off)

Motels/hotels

Rooms

- Clean bathrooms (e.g., wipe mirror or sink, take supplies to coworker)
- Make beds (e.g., pull sheet or bedspread to top of bed, straighten pillows

Animal shelters

Animal quarters

- Feed animals (e.g., dump food into bowl or tank)

persons with the most severe disabilities have little control over their lives, it is imperative that educators closely observe individuals for behaviors that indicate preference, dislike, or indifference toward environments or activities.

Assessing reactions to environments and activities is a simple task when students make such overt and typical responses as smiling, frowning, crying, increasing attention or active involvement in an activity, and increasing motor movement in anticipation of an activity. However, for many students, the responses may be less obvious. For these students, teachers and parents must be keen observers and interpreters of student behavior. For example, a student might indicate pleasure or displeasure for a particular activity or person by changing his or her body tone, through subtle changes in the level and type of motor activity, or by changes in vocalizations. More specific examples of expressions of displeasure include averting the eyes or head, tightening the lips, becoming increasingly passive, refusing to maintain the head in an erect position, deep sighing, or maintaining an "empty" or "looking through you" gaze. Other examples include refusing to open the mouth for feeding, increasing the frequency of tongue thrusts when disliked foods are introduced, or refusing to free the grip on a wheelchair armrest when being transferred to a low preference activity. Examples of specific behaviors in the presence of preferred events include attempting to make visual eye contact with persons or objects, leaning forward in anticipation, expressing positive affect or vocalizations, and struggling to participate as evidenced by straining to look, touch, or cooperate.

In order for educators to recognize these behaviors, they must first regard all student behavior as potentially communicative. In addition, they must repeatedly observe the student in integrated settings in order to accurately inter-

Table 10.5. Examples of activities in community use subenvironments

Transportation (e.g., bus, train, taxi)

Ticket booth/machine
- Purchase ticket (e.g., hand money to attendant or insert coin)

Turnstile/vehicle entrance
- Pay (e.g., hand ticket or money, place money in machine)
- Board/disembark (e.g., assist by bearing weight or stepping)

Passenger area
- Find seat (e.g., look toward empty or preferred seat)
- Ride (e.g., maintain balance, hold on, look at scenery)

Intersections (e.g., controlled, uncontrolled)

Crosswalk
- Obey signal (e.g., push walk button, attend to walk light)
- Walk (e.g., assist with walking or moving wheelchair, assist with stepping up or down)

Restaurants (e.g., fast food, cafeteria, sit down/order)

Table or counter
- Order (e.g., look at picture held by peer, hand picture of choice to waiter)
- Eat (e.g., assist with eating)

Restroom
- Toileting (e.g., assist with dressing, maintain balance on toilet)
- Wash (e.g., turn water on or off, push dryer button)

Cashier
- Pay (e.g., hand money, push on name stamp for check signature)

Grocery stores (e.g., small convenience, supermarket)

Aisles
- Shop (e.g., look at choice, drop item into cart, push cart)

Counter
- Purchase (e.g., place items on counter; hand money, credit card, or purchase order to clerk)

Merchandise stores (e.g., clothing, general, sports, music, hardware, pharmacy, pet)
- (see Grocery stores section for examples)

Services (e.g., doctor, dentist, hairstylist, post office, bank)

Waiting room
- Entertain self (e.g., choose magazine, turn pages, tolerate tape recorder headphones)

Lobby
- Wait in line (e.g., bear weight)

Counter
- Pay (e.g., hand money or credit card to pay, push on name stamp for signature)

pret the function of the behaviors displayed. In some cases, such behaviors may have been extinguished in the classroom because they were previously regarded as meaningless and ignored by others. Therefore, repeated experiences in new environments or with new activities may be necessary in order for the behaviors to emerge again.

Observations of students could be conducted by including them in visits to inventory the subenvironments and activities of various environments. Another context for observation is during the discrepancy analysis stage (discussed later in this chapter) of the ecological model at which point the student's skills in performing activities are assessed. A third option is to have parents or residential staff observe the student during visits to settings identified as current or future environments.

Since many persons who have the most severe disabilities have been exposed to a limited number of environments, it is appropriate to also provide them with access to situations that have not been targeted as current and future environments, and to gauge their reactions to the experiences in these settings. If preference is shown for a particular setting, then that locale should be inventoried for activities in which the student can participate.

Finally, information about a student's responses to environments and activities is important not only for educators, but also for parents, roommates, and residential staff. Such information can be used by these individuals to improve the quality of a student's life through access to places and activities that the student enjoys.

Establishing Priorities and Selecting Activities

One approach to selecting an activity from the large number of potential ones that could be taught is to establish criteria and a rating system. Figure 10.1 provides several possible criteria and a sample rating system for setting priorities among the activities. After rating each activity using the 20 criteria, a total sum is computed for each. Activities with the highest sums are given the highest priority for instruction. This procedure gives equal weight to each criterion. An alternative is to differentially weight the criteria so that items regarded by parents and professionals as more important are assigned greater value. For example, the least important items would be given a weight of one, the items with the next higher level of importance would be weighted with a two, and so on. Then, the rating (e.g., a rating of "somewhat agree with the statement" is worth 2 points) for an item would be multiplied by the weight assigned to that item to obtain a weighted score.

Listing Skills that Comprise Each Activity

A task analysis process is used to identify the skills that comprise each of the activities for the student that are selected for instruction. A task analysis is completed by either observing someone who is performing an activity or by completing the activity him- or herself. In both cases, the steps (i.e., skills) needed to complete the activity are listed in the order in which they occur. As an example, a task analysis of checking out a book at the library would consist of the following:

1. Scan the library to find the librarian's desk.
2. Go to the librarian's desk.
3. Hand the book to the librarian.
4. Remove wallet or purse.
5. Remove library card.
6. Hand card to librarian.
7. Receive card from the librarian.

Criteria	Activity											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Can be used in current environments												
2. Can be used in future environments												
3. Can be used in four or more different environments												
4. Affords daily opportunities for interaction with nondisabled persons												
5. Increases student independence												
6. Helps maintain student in, or promotes movement to a least restrictive environment												
7. Is chronologically age-appropriate												
8. Student will acquire in 1 year the necessary skills to participate in the activity												
9. Parents rate as a high priority												
10. Promotes a positive view of the individual												
11. Meets a medical need												
12. Improves student's health or fitness												
13. If able, student would select												
14. Student shows positive response to activity												
15. Advocacy, training, and other support can be arranged so that student can participate in the activity in the absence of educational services												
16. Related service staff support selection of activity												
17. Transportation is no barrier												
18. Cost is no barrier												
19. Staffing is no barrier												
20. Environments are physically accessible												
TOTAL												

Figure 10.1. Twenty examples of criteria used for setting priorities (Rating of: 3 = strongly agree with statement, 2 = agree somewhat with statement, 1 = disagree somewhat with statement, 0 = disagree strongly with statement) for 12 different activities. (Adapted from Dardig, J.C., & Heward, W.L. (1981). A systematic procedure for prioritizing IEP goals. *The Directive Teacher, 3,* 6–7.)

8. Place card in wallet or purse.
9. Receive book from the librarian.

Conducting the Discrepancy Analysis

After the activities are task analyzed, the student's ability to perform each activity is assessed in the environments where the activities naturally occur. Discrepancies are noted between the skills used by a nondisabled person in carrying out an activity, and the student's skills. Table 10.6 (York & Rainforth, 1987) illustrates the discrepancy analysis process with a student who is very severely disabled. The example involves the recreational/leisure domain, the environment is the public library, and the subenvironment is the library's browsing area that contains magazines and tapes. A nondisabled person's behaviors in performing the activity are listed in the first column. Column two contains the results of assessing the student's status on each behavior comprising an activity, with notes on the assistance required in order for the student to perform each behavior.

Developing Individualized Adaptations

The next step in the ecological model is the development of adaptations. For example, the last column of Table 10.6 contains notations as to whether to teach (T) the student on the actual behavior, or whether it should be adapted (A) in some way. Adaptations are very important if students with the most severe disabilities are to participate in integrated settings. Baumgart et al. (1982) have identified five categories of adaptations.

The first type is the provision of personal assistance. In order for a student to participate in an activity, it may be necessary to have peer or adult assistance. Examples are physical assistance such as pushing a student's wheelchair, holding up pictues of menu items for an individual from which he or she can make a selection, or supporting a student's weight during a transfer from a wheelchair to a bench. A second form of personal assistance is a gestural or verbal aid such as a peer pointing the way to the playground or pointing to the controls of a computer game. If a student is unlikely to learn the behavior and personal assistance is available, then this adaptation may be appropriate. In Table 10.6, personal assistance is in the form of pushing the student to areas, positioning the tape recorder, holding objects up for selection, pointing to areas to which the student must go, and adjusting the volume of the tape recorder.

A second type of adaptation is the modification of the sequence of skills. For instance, a student who must be fully supported when boarding a bus and whose balance is poor, could board the bus, sit in the front seat, then hold the bus ticket out. This varies from the typical sequence of boarding, giving the ticket to the driver, and then finding a seat.

A third adaptation is the modification of rules. For example, if one nondisabled employee typically completes an entire work task, then the rules might

2.156

Table 10.6. Example of a partial assessment conducted at a public library

Nondisabled person inventory	Student with disabilities inventory (assessment)[a]	Instructional solutions (teach directly or adapt)[b]
ACTIVITY: Choosing a tape		
Skills:		
Locate tape section.	– T pointed to audiovisual section, then to tapes.	I: S will look in direction of tape area once in visual field (T/peer push wheelchair).
Browse through tapes.	– T located age-appropriate tapes, then selected four.	A: S will look at tapes pulled from stack by T/peer.
Select one tape.	+ S looked at one tape after T presented four.	
ACTIVITY: Listening to tape		
Skills:		
Locate tape.	+ S scanned then located after T pointed to picture of recorder on communication board	
Position self.	– T wheeled and positioned S.	A: S will be pushed by T/peer to tape section.
Open tape player lid.	– S initiated move toward eject button; T relaxed S's arm then primed reach for and push button.	A: S will push on lever extended from eject button; T/peer positions tape recorder.
Insert tape.	– S pushed tape into place with back of wrist after T aligned tape in track.	A: S will push in tape after T/peer places recorder close to S's wrist and aligns tape.
Close lid.	– S initiated move toward lid; T relaxed S's arm then assisted reach down and push closed.	I: S will push lid closed with forearm after T/peer places recorder near forearm.
Put on headphones.	– T places earphones on S's head.	A: T/peer will perform.
Turn on tape.	– S was unable to reach and exert enough pressure; T turned on.	A: S will turn on tape with hand/head using microswitch.
Adjust volume.	– T moved volume dial; S frowned then smiled.	A: S will smile when appropriate volume dialed by T/peer.
ACTIVITY: Choosing a magazine		
Skills:		
Locate magazine section.	– T pointed to magazine section.	I: S will look in direction of magazines once in visual field (eventually S will choose between tapes and magazines).
Locate preferred magazines.	– T located age-appropriate and preferred content magazines.	I: S will scan magazine section with T/peer guide by pointing.
Select one magazine.	+ S looked at one magazine and smiled after T presented three.	
ACTIVITY: Browsing through magazine		
Skills:		
Locate an area to sit.	– T pointed out several open spots then decided to go near window.	I: S will choose where to sit by looking at one area (window or lounge) pointed out by T/peer.
Position self.	– T wheeled and positioned S.	A: S will be positioned by T/peer (consider getting S out of chair to sit on carpet).
Hold magazine.	– T positioned and held magazine on wheelchair tray.	A: T places magazine in book holder adaptation.
Read articles/look at pictures.	+ (S looked at pictures.)	
Turn pages.	– S initiated reaching to page but required T's assist to relax, reach, turn pages.	A: S will turn pages with hand/mouth using dowel rod with Plasti-Tac on end.

(continued)

[a] T = teacher, S = student. + indicates independent and acceptable performance; – indicates assistance was required to achieve acceptable performance.

[b] I = teach directly, A = adapt.

be altered to permit two persons, one with severe disabilities and the other who is nondisabled, to work together to complete the entire task. Similarly, a disabled employee might be allowed to complete only part of a task. For example, in operating a dishwasher, an employee with a disability could add soap to the

BEST COPY AVAILABLE

washer and then turn it on, rather than completing the entire job that involves bussing tables, cleaning tableware, loading and unloading the dishwasher, and measuring the correct amount of soap.

A fourth adaptation is the modification of the social environment or the changing of attitudes that interfere with student involvement in activities. Thus, teachers, peers, and others who might be uncomfortable with persons with disabilities could be provided with information about disabling conditions. More importantly, they could learn ways to interact with persons who are disabled. For example, at school, classmates could learn to interpret the eye movements of the student with the disability to indicate his or her choice of areas to be taken to during recess. Similarly, the cashier at the grocery store might be taught to assist a student, who has difficulty releasing items, to loosen his or her grip on the money that is held out in payment for the purchases.

A fifth adaptation involves using special equipment to assist a student in completing an activity. Creative use of adaptations is necessary if persons with the most severe disabilities are to participate in domestic, recreational/leisure, work, and other community settings. In Table 10.6, adaptive equipment is in the form of a lever extended from the eject button of the tape recorder, a hand or head activated microswitch to turn on the recorder, and a dowel rod that is operated by the hand or mouth to turn pages in a magazine.

Numerous other adaptive devices are also available. For eating, there is an electric self-feeder that is controlled by a slight body movement. There are also sandwich holders, grips and splints to help an individual grasp utensils and cups, and no-tip drinking glasses.

Adaptive devices used for dressing include one-handed belts, large handled zippers, and buttoning aids. Examples of equipment to aid meal preparation are one-handed openers for plastic bags, jars, cans, and boxes; and grips to reduce the strength required for removing lids. For obtaining water from a faucet, there is a pressure switch attached to the facet that turns water on when a cup is held against it. Door opening is made easier with a foot activated opener or a door knob extension. Aids for hygiene include levers that assist an individual in flushing toilets and obtaining toothpaste from a tube, and extended or enlarged grips for brushes.

For recreational/leisure activities, available adaptive devices include switch activated page turners; microswitch controlled computer software; one-handed card shufflers; a fishing aid to support line casting by those with some shoulder and elbow movement; and specially designed grips for pool cues, table tennis paddles, and other recreational equipment.

Adaptive equipment has seen extensive use in work settings. Jigs that obviate the need for an individual to be able to count or to have sophisticated manual dexterity skills are common. York and Rainforth (1987) describe a stapling adaptation used in a community setting by a student with no purposeful arm movement other than occasional random movements. The student moved a sliding tray, containing papers that were inserted by another worker, into the mouth of an electric stapler.

2.157

In another example by York and Rainforth (1987), a student who lacked sufficient strength to stamp brochures at a travel agency was provided a hinged Plexiglas apparatus with adjustable positions for the stamp on the upper plate, and with space on the lower plate for the material to be stamped. A third example involved a student maintained in a reclined position in a wheelchair, who had limited movement of his upper extremities (York & Rainforth, 1987). This individual performed a collating activity in a community setting. The task was adapted by using a sticky, putty material on the tip of his hand splint, thereby enabling him to move one paper at a time from a pile to a device that was controlled by a microswitch activated by the worker's elbow. The device, when activated, collated the papers.

Developing Instructional Objectives

The results of a discrepancy analysis can be directly translated into instructional goals and objectives. The goal consists of the activity to be learned. The objective states the unacquired skills that will be taught, as well as any necessary adaptations. For example, using the discrepancy analysis and instructional solutions in Table 10.6, the goal and objectives for choosing and listening to a tape might consist of:

Goal:	George will choose and listen to a musical tape at the public library.
Objective 1:	When taken to the browsing area in the Metro Public Library, George will locate the tape section by looking in its direction for 3 seconds duration, on five of seven consecutive trips to the library.
Objective 2:	In the browsing area at Metro Public Library, when a teacher or peer holds four tapes in front of him, George will choose one by looking at it for 3 seconds duration, or indicate disapproval of options by looking at his lap, for eight of ten consecutive opportunities.
Objective 3:	In the browsing area at Metro Public Library, George will complete 80% of the following steps involved in listening to a tape, for 5 consecutive opportunities: 1. Push the tape recorder eject lever after the tape recorder is positioned in front of his hand on his wheelchair tray. 2. Push tape into recorder lid after tape is aligned by a teacher or peer. 3. Push lid closed after recorder is positioned in front of his arm. 4. Turn on the tape recorder using microswitch. 5. Indicate desired volume by smiling at person adjusting it.

2.158

Addressing Implementation Issues

A number of issues concerning scheduling, staffing, transportation, and monetary resources may arise during the implementation stage. Some suggested solutions to these issues are shown in Table 10.7. These suggestions are taken from Baumgart and Van Walleghem (1986), Ford and Checkosky (1984), Hamre-Nietupski, Nietupski, Bates, and Mauer (1982), and Sailor et al. (1986). In regard to scheduling, Table 10.7 provides guidelines for the amount of time spent in various types of community environments versus classroom and other school settings (Ford & Checkosky, 1984; Sailor et al., 1986). Generally, time in the community increases as students become older. Time at school is dedicated to: 1) additional training on skills needed in community settings, 2) social integration with nondisabled peers, and 3) specialized therapies that cannot be trained within the context of community activities.

Staffing patterns for implementing the ecological model include utilizing a consultant, staggering implementation of the model across students, teaming less skilled students with higher skilled ones during community training, and arranging for support staff to train or consult in community settings (Baumgart & Van Walleghem, 1986). Other approaches include having support staff train groups of students at school in order to free other staff for community-based training, team teaching, using computers as a more efficient approach to administrative tasks, and utilizing volunteers (Baumgart & Van Walleghem, 1986).

Transportation is frequently a barrier to implementing the ecological model. Transportation demands can result from the model's emphasis on instruction in a variety of community settings. In addition, normalization principles would dictate against traveling in large groups and having a disproportionate number of persons with disabilities in the same place at the same time (e.g., one individual with a disability per setting would be optimal). Some possible solutions include having school buses take students to community sites the first thing in the morning, walking to sites, using public transportation, reimbursing staff and volunteers for use of personal vehicles, and using public school cars (Hamre-Nietupski et al., 1982; Sailor et al., 1986).

Another common issue concerns funding. Possible sources of funds include using classroom material funds for community training costs, having parents pay a nominal amount, conducting fund raising events, and having students shop for groceries for parents or staff (Hamre-Nietupski et al., 1982; Sailor et al., 1986).

SUMMARY

The ecological model for developing curriculum content describes and explains how the model can be extended to students with the most severe disabilities. Use of the model with students with the most severe disabilities requires: 1) an

Table 10.7. Suggested solutions to implementation issues

Scheduling

—Proportion of time in different environments for various age groups

Environments	Age			
	6–9	9–12	12–16	16–21
Classroom	40%	25%	10%	—
School	35	25	15	15%
Community	25	50	75	85

—Number of training opportunities in different domains for various age groups

Environments	Age				
	6–10	11–21	11–17	18–19	20–21
Community					
street crossing (times/wk)	2–3	5	—	—	—
transportation (times/wk)	2–3	5	—	—	—
store shopping (times/wk)	.5	1	—	—	—
restaurant use (times/wk)	2–3	1	—	—	—
Recreation and leisure (times/wk)	.5	1	—	—	—
Competitive employment (half days per week)	—	—	2–3	4–5	Full-time

—Classroom instruction should consist of extra training related to skills and activities needed for nonclassroom settings and specialized therapies that cannot be incorporated into school or community activities

—School settings should focus on social contact with peers and on involvement in typical age-appropriate school activities

Staffing

—Use a consultant to assist during the planning stage

—Stagger implementation where the number of students or amount of community-based training increases gradually

—Use heterogeneous groupings so that a student with the most severe disabilities accompanies a student with a lesser disability

—Restructure related services to permit support staff to train or consult in community environments

—Restructure related services so that support staff teach groups of students for longer periods of time at school, while other students are in the community

—Procure temporary paraprofessional staff

—Team teach, with one teacher instructing a large group while the other teacher conducts community-based training

—Make more efficient use of time by using computers to manage data and other administrative tasks

—Use volunteers, such as parents, college students, and senior citizens; and peer companions or tutors

—In terms of liability, staff and volunteers are usually covered if the school district carries insurance, if the community training is approved by a school official, and if the school district's policies regarding use of volunteers are followed

(continued)

Table 10.7. *(continued)*

Transportation
- Public school vehicles
- Have school bus take student to a community site first thing in the morning
- Driver's education vehicles
- Walk to sites
- Volunteers' or parents' cars
- Public transportation
- Reimburse school staff for using their cars
- University cars
- Whenever staff or volunteer cars are used, district policies must be followed in terms of minimal insurance coverage, written permission by a school official, and other district rules

Monetary resources
- Use the money designated for classroom materials for community training costs
- Pay restaurant meals by transferring money from the school lunch program
- Have parents pay a nominal amount to help offset costs
- Conduct fund raising events
- Request funds from parent groups or student government
- Establish a purchase order account between merchants and the school
- Run a school soup and salad bar to raise money
- Have students shop for groceries for parents or teachers
- Use vocational education money

From Baumgart and Van Walleghem (1986), Ford and Checkosky (1984), Hamre-Nietupski, Nietupski, Bates, and Mauer (1982), and Sailor, Halvorsen, Anderson, Goetz, Gee, Doering, and Hunt (1986).

emphasis on the concept of partial participation and an interpretation of that concept that allows passive engagement in activities; 2) greater dependence on technological adaptations that permit an individual to participate in activities; and 3) assessing the communicative intent of students' behavior, including very subtle responses, and interpreting the meaning of those behaviors in regard to preferences for environments and activities.

REFERENCES

Baumgart, D., Brown, L., Pumpian, I., Nisbeth, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of The Association for the Severely Handicapped, 7*(2), 17–27.

Baumgart, D., & Van Walleghem, J. (1986). Staffing strategies for implementing community-based instruction. *The Journal of The Association for Persons with Severe Handicaps, 11*(2), 92–102.

Brown, F., Helmstetter, E., & Guess, D. (1986). *Current best practices with students with profound disabilities: Are there any?* Unpublished manuscript, The Institute of Professional Practice, Inc., New Haven.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979). A strategy for developing chronological age appropriate and functional curricular content for severely handicapped adolescents and young adults. *Journal of Special Education, 13*(1), 81–90.

Brown, L., Branston-McLean, M., Baumgart, D., Vincent, L., Falvey, M., & Schroeder, J. (1979). Utilizing the characteristics of current and subsequent least restrictive environments as factors in the development of curricular content for severely handicapped students. *AAESPH Review, 4*(4), 407–424.

Brown, L., Falvey, M., Vincent, L., Kaye, N., Johnson, F., Ferrara-Parrish, P., & Gruenewald, L. (1980). Strategies for generating comprehensive, longitudinal, and chronological age appropriate individualized education programs for adolescents and young adult severely handicapped students. *Journal of Special Education, 14*(2), 199–215.

Brown, L., Shiraga, B., York, J., Zanella, K., & Rogan, P. (1984a). Ecological inventory strategies for students with severe handicaps. In L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan, & R. Loomis (Eds.), *Educational programs for students with severe handicaps* (Vol. XIV, pp. 33–41). Madison, WI: Madison Metropolitan School District.

Brown, L., Shiraga, B., York, J., Zanella, K., & Rogan, P. (1984b). The discrepancy analysis technique in programs for students with severe handicaps. In L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan, & R. Loomis (Eds.), *Educational programs for students with severe handicaps* (Vol. XIV, pp. 43–47). Madison, WI: Madison Metropolitan School District.

Dardig, J. C., & Heward, W. L. (1981). A systematic procedure for prioritizing IEP goals. *The Directive Teacher, 3*, 6–7.

Falvey, M. A. (1986). *Community-based curriculum: Instructional strategies for students with severe handicaps.* Baltimore: Paul H. Brookes Publishing Co.

Ford, A., Brown, L., Pumpian, I., Baumgart, D., Nisbet, J., Schroeder, J., & Loomis, R. (1984). Strategies for developing individualized recreation and leisure programs for severely handicapped students. In N. Certo, N. Haring, & R. York (Eds.), *Public school integration of severely handicapped students: Rational issues and progressive alternatives* (pp. 221–244). Baltimore: Paul H. Brookes Publishing Co.

Ford, A., & Checkosky, D. (1984). *A community-based curriculum guide for moderately and severely handicapped students.* Syracuse: Syracuse City School District.

Hamre-Nietupski, S., Nietupski, J., Bates, P., & Mauer, S. (1982). Implementing a community-based educational model for moderately/severely handicapped students: Common problems and suggested solutions. *The Journal of The Association for the Severely Handicapped, 7*(4), 38–43.

Nietupski, J., & Hamre-Nietupski, S. (1987). An ecological approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 191–223). Baltimore: Paul H. Brookes Publishing Co.

Sailor, W., Halvorsen, A., Anderson, J., Goetz, L., Gee, K., Doering, K., & Hunt, P. (1986). Community intensive instruction. In R. H. Horner, L. H. Meyer, & H. D. B. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 251–288). Baltimore: Paul H. Brookes Publishing Co.

Wehman, P., Renzaglia, A., & Bates, P. (1985). *Functional living skills for moderately and severely handicapped individuals.* Austin, TX: PRO-ED.

York, J., & Rainforth, B. (1987). Developing instructional adaptations. In F. Orelove & D. Sobsey, *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 183–217). Baltimore: Paul H. Brookes Publishing Co.

2.159

Nietupski, J. A. & Hamre-Nietupski, S. (1987). An ecological approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell, (Eds.), pp. 225-253. Innovative program design for individuals with dual sensory impairments. Baltimore: Paul H. Brookes. P.O. Box 10624 Baltimore, MD 21285-0624

2.161

BEST COPY AVAILABLE

BEST COPY AVAILABLE

CHAPTER 9

An Ecological Approach to Curriculum Development

John A. Nietupski and Susan M. Hamre-Nietupski

CASE STUDY #1: A SENSORY-DEVELOPMENTAL APPROACH

Laura is a 10-year-old child who is severely handicapped and has dual sensory impairments. She has residual hearing, which is enhanced through the use of bilateral hearing aids and an auditory trainer. Her residual sight is enhanced by corrective lenses through which she is able to perceive light and dark, and to discriminate objects on the basis of their outline.

Laura attends a program in which a sensory-developmental approach is emphasized. Accordingly, her individualized education program (IEP) goals, drawn from the developmental checklist used by the school program, are to: 1) tolerate different textures; 2) develop pre-speech babbling skills; 3) develop equilibrium responses and protective extension; 4) discriminate shapes and sizes; and 5) improve fine motor skills such as reach and grasp. Specific daily activities include touching sandpaper shapes; feeling hot and cold water at the sink and water table; tumbling in vats of Styrofoam peanuts and plastic balls in the "sensory learning environment" and experiencing different food textures/tastes at snack and lunch times. During communication time, the therapist encourages babbling through tickling and grab-bag exploration of different textured toys and other materials. The communication therapist occasionally works on the pre-speech oral skills of tongue and lip movements through exercises such as licking peanut butter off the upper lip or the roof of the mouth, blowing bubbles, and smacking lips. Snack periods are used to expose Laura to different food tastes, smells and textures. Occupational and physical therapy time is devoted to twirling in a suspended swing, rocking on a large ball, and rolling over a bolster in the prone position. Virtually all of Laura's instruction occurs in the classroom, the sensory learning environment, or the therapy room.

CASE STUDY #2: AN ECOLOGICAL APPROACH

James also is a 10-year-old child with severe handicaps and dual sensory impairments. He, too, has residual sight and hearing that are enhanced through the use of auditory and vision aids.

2.162

James attends a school program that emphasizes an ecological approach. His IEP goals, developed jointly with parents and therapists, address four major life-skill domains/curricular areas: domestic living, recreation/leisure, community functioning, and vocational. Specific IEP goals include: *Domestic:* 1) to put on shoes and socks, and 2) to spear bite-sized food with fork. *Community Functioning:* 1) to walk from one area of a store to another by trailing the wall, and 2) to select items from a store shelf. *Recreation/leisure:* 1) to operate a musical Simon toy, and 2) to operate pop and snack vending machines. *Vocational:* 1) to staple and assist in delivering handouts needed by the school office personnel and regular education teachers in the building. A communication goal integrated throughout the above activities is to sign "help" when needing assistance.

James' daily instructional activities occur in both school and nonschool settings. Domestic living skills instruction occurs in the classroom, lunchroom, locker room, and, twice per week, in an actual community home. James and his classmates are taught to use the school vending machine during "break times" and community vending machines on their weekly community training experiences. They practice finding items on shelves in the simulated classroom store, and once per week in an actual community store. James practices his trailing/mobility skills in the school and during all community/domestic training sessions. James is taught the vocational stapling skill in his classroom, the school office, and the lead teacher's office. The therapists integrate instruction on motor and communication skills into the ongoing activities in the school and community.

The two case studies presented above, while perhaps exaggerated in order to accentuate the differences, reflect two major instructional approaches advocated for use with pupils who are severely handicapped, including students with dual sensory impairments (Brown, Branston et al., 1979; Brown, Branston-McLean et al., 1979). One approach, loosely termed sensory-developmental and embodied in Case Study #1, suggests that curriculum content should be based on developmental sequences in fine and gross motor, receptive and expressive communication, social, sensorimotor, cognitive, and self-help curricular areas. The educator's task under such an approach is to determine a student's developmental level and select those skills for instruction that would represent the next logical developmental milestone if that student were a nonhandicapped individual. Thus, educators take students from the bottom-up, from simple to more complex skills within each curricular area, following established developmental guidelines. Specialists from the communication, mobility, occupational, or physical therapy areas likewise assess developmental level and independently teach within a developmental framework.

The second major approach, termed *ecological* and embodied in Case Study #2, represents a radical departure from the sequential, bottom-up sensory-developmental approach. In essence, proponents of an ecological approach seriously question whether following normal developmental progression represents the most effective instructional approach for students with severe handicaps (Guess, Sailor, & Baer, 1977; Holvoet, Guess, Mulligan, & Brown, 1980). It is argued that, rather than narrowing the discrepancy between the behavior of individuals who are nonhandicapped and those who have severe handicaps, a developmental approach serves to widen this discrepancy (Brown, Branston-McLean, et al., 1979). Further, the limited amount of instructional time available, coupled with the often lengthy time needed to acquire skills, results in students who never become "ready" for instruction on skills that are appropriate to their chronological age and that lead toward more independent functioning in the community during post-school years.

As a result of these concerns, an ecological approach, discussed in detail below, has been proposed. This ecological or "top-down" approach provides a strategy for educators to determine the skills needed by *nonhandicapped* individuals to function independently in a variety of vocational, domestic, recreation/leisure, and community environments currently available or likely to be encountered in the future by students with severe handicaps. This information then forms the basis for individualized curriculum content for students with severe handicaps, including dual sensory impairments. Under this model, specialists such as communication, occupational, and physical therapists first determine the skills relative to their disciplines that are needed in vocational, domestic, community and recreation/leisure environments, and then teach students in the context of normalized experiences.

Proponents of an ecological approach argue that by referencing curriculum content to the skills needed by the nonhandicapped population, students are more likely to receive instruction on *functional* skills — skills that will be useful immediately or in the near future, across a range of natural environments. Thus, upon graduation from school programs, students are more likely to have acquired skills that will contribute to more independent functioning in the real world. Since the schools' responsibility, according to Public Law 94-142, is to teach skills needed to optimize independence (Hawkins & Hawkins, 1981), an ecological approach, much more so than a sensory-developmental approach, provides a means by which schools can meet that responsibility.

Those who favor an ecological approach also do so because of the *individualized* nature of the resulting curriculum. As stated by Snell (1983), "Because of cultural and geographic differences from one family and setting to another, all skills that are relevant for one student cannot be assumed to be relevant for another" (p. 78). Individualized and localized, rather than standardized, curricular sequences are needed. An ecological approach allows for such individualized curricula, due to its reliance upon careful observation of the skills demanded in particular nonschool environments.

The purpose of this chapter is to provide instructional personnel with a step-by-step process for developing ecologically valid curriculum content for students who are severely handicapped and have dual sensory impairments. In the following section, this process will be articulated and illustrated through several examples. Thereafter, the empirical support for an ecological approach will be discussed, along with future research needs with regard to this area.

APPLICATION TO EDUCATIONAL SETTINGS

Figure 1 delineates a step-by-step process for generating curricular content using an ecological approach. Each step in the process will be discussed below.

Step 1: Delineate Curriculum Domains

The first step in the ecological curriculum development process involves the specification of those domains to be addressed in a student's IEP. It is recommended that four domains be addressed: vocational, domestic, community, and recreation/leisure. These four domains represent major persisting life needs of all persons, including those with severe and dual sensory impairments. That is, all individuals are expected to participate to the extent possible in work, domestic living and community environments and in recreational/leisure pursuits. A domain approach facilitates the integrated use of communication, motor, social, and other skills within the context of natural, functional activities. Thus, when being taught to shop in a department store (community domain activity), a student also might be receiving instruction on: 1) the gross motor skills of walking across various types of terrain (streets, stairs, sidewalks, escalators, and elevators); 2) the fine motor skills of obtaining money from a wallet or purse and putting change in one's pocket; 3) the communication skill of indicating the desire to make a purchase to the clerk or cashier; and 4) the social skill of signaling good-bye when leaving the cashier. Traditional skill areas are not ignored under a domain approach, but integrated into meaningful activities so that students are able to discern the reason for performing these skills.

Step 2: Delineate Environments

Once the domains are delineated, instructional personnel should identify the environments in which students currently function and the subsequent environments likely to be experienced in the future. For example, the current environment in the domestic domain for James, the student in Case Study #2, might be his home. However, at some point in the future, a group home or supervised apartment might be appropriate for his domestic living arrangement.

Practitioners might focus more of their attention on the present environment in situations where such an environment is to be experienced for an extended period of time. For example, since James is 10 years old, he will probably remain at home until age 21. Thus, activities targeted for instruction primarily will be drawn from the current domestic environment. As he becomes older, however, an increasing amount of instructor attention should be devoted to inventorying and teaching activities needed in a subsequent living arrangement, such as a group home or sheltered apartment.

Step 1: Delineate curriculum domains
(Vocational; Domestic; Community; Recreation/Leisure)
Step 2: Delineate the variety of current and subsequent natural environments in each domain in which students function/might function
Step 3: Inventory and delineate the sub-environments within each environment
Step 4: Inventory and delineate the activities performed by nonhandicapped persons in those sub-environments
Step 5: Prioritize activities in order to delineate IEP goals
Step 6: Delineate the skills needed in order to perform the activities
Step 7: Conduct a discrepancy analysis in order to determine required skills not currently in the student's repertoire
Step 8: Determine necessary adaptations
Step 9: Develop an instructional program

Figure 1. The nine steps of the ecological curriculum development process.

Step 3: Inventory and Delineate Sub-environments

Within most environments, several distinct areas, or sub-environments, can be delineated. For example, sub-environments in the home might include the bathroom, bedroom, kitchen, living room, porch, basement, and yard areas. Likewise, the community domain environment of a restaurant can be divided into the cashier, seating, and salad bar areas, the cloakroom, and the restroom.

Step 4: Inventory and Delineate Activities

Within each sub-environment, nonhandicapped individuals perform a myriad of activities. The ecological inventory process requires careful observation of nonhandicapped individuals in each sub-environment. By specifying the activities performed by nonhandicapped individuals, a practitioner can develop a rich source of information regarding possible curricular content. Figures 2, 3, 4, and 5 present sample ecological inventories in the vocational, domestic, community and recreation/leisure domains.

Step 5: Determine Priorities Among Activities and Select IEP Goals

As indicated in Figures 2–5, ecological inventories present instructional personnel with an enormous number of potential teaching targets. Obviously, a teacher cannot possibly address all needed activities within any one given period of time. Thus, a system for setting activity priorities and selecting IEP goals is critically needed.

No empirically derived rules currently exist for setting such activity priorities and selecting IEP goals. However, several authors have suggested strategies for creating activity priorities (Ford et al., 1984; Wuerch & Voeltz, 1982). Six of the more pertinent suggestions for selecting priorities include:

1. Parental preference
2. Student preference/reinforcement value
3. Instructional personnel preference
4. Frequency of occurrence (within or across environments or sub-environments)
5. Safety concerns
6. Social significance

Each of these considerations is discussed briefly below.

2.163

- DOMAIN: *Vocational*
  - Environment: *School cafeteria* (current)
    - Sub-environment: *Dish area*
      - Activity: Remove paper/plastic from trays and plates and discard
      - Activity: Stack plates, cups, saucers
      - Activity: Sort dirty silverware into silverware baskets
      - Activity: Rinse plates, cups, saucers, silverware, and trays
      - Activity: Scrub out pans with sponge/scrubber
      - Activity: Fill dishwasher trays with plates, etc.
      - Activity: Operate dishwasher to wash items on tray
      - Activity: Stack dishes, cups, saucers, etc., on carts in designated area for each item
      - Activity: Operate garbage disposal
      - Activity: Roll napkin around a set of spoon, fork, knife
    - Sub-environment: *Serving line area*
      - Activity: Remove empty pans from serving line, place on cart
      - Activity: Replace empty pans with full pans of same item
      - Activity: Replace dishes, saucers, cups, and silverware rolls as the supply runs low
      - Activity: Scoop and place portions of vegetables, potatoes, or casserole on plates
      - Activity: Hand plate of food to student
      - Activity: Take money/ticket and operate cash register
    - Sub-environment: *Seating area*
      - Activity: Wipe off tables (top and seat)
      - Activity: Sweep floor
      - Activity: Unfold and set up tables
      - Activity: Fold up tables and return to wall
      - Activity: Throw remaining trash items in trash can
      - Activity: Fill wash bucket with soapy water
      - Activity: Wash floor with bucket and mop
      - Activity: Replace plastic trash/pop can liners
      - Activity: Remove and tie filled trash/pop can liners
      - Activity: Replace pop in pop machine
      - Activity: Replace candy/snacks in candy/snack machine
      - Activity: Toss returnable pop cans into pop can receptacle
    - Sub-environment: *Loading dock/supply area*
      - Activity: Toss filled trash liners in dumpster
      - Activity: Place liner with returnable pop cans in appropriate area
      - Activity: Open/close key-type lock on pop/snack supply bin
      - Activity: Stack cases of pop/snacks/candy on two-wheel dolly
      - Activity: Push dolly to/from vending machine area

Figure 2. The ecological inventory process: Vocational domain.

Parental Preference This refers to assigning priorities on the basis of parental input about desired educational goals. Parental input too frequently is ignored in the selection of IEP goals (Alberto & Troutman, 1982). Frequently, educators select IEP goals and then ask parents to sign the IEP document. Thereafter, the lack of carryover at h[illegible] is lamented. Perhaps the problem is not, as it has often been unfairly c[illegible]

- DOMAIN: *Domestic*
  - Environment: *Natural home* (Current)
    - Sub-environment: *Bedroom*
      - Activity: Make bed after awakening
      - Activity: Obtain outfit (pants/shirt/socks, underwear/shoes)
      - Activity: Put on clothing items
      - Activity: Remove clothing items
      - Activity: Put away clothing items in correct drawer
      - Activity: Pick up toys and return to toy chest
      - Activity: Hang up hanging clothes
      - Activity: Place shoes on shoe rack
    - Sub-environment: *Kitchen*
      - Activity: Dry dishes and silverware
      - Activity: Put silverware in tray in drawer
      - Activity: Remove filled trash can liner and twist tie top
      - Activity: Replace new trash can liner
      - Activity: Put dishes/cups away
      - Activity: Wash vegetables and fruit
      - Activity: Peel and section oranges
      - Activity: Peel banana
      - Activity: Prepare toast
      - Activity: Prepare cereal
      - Activity: Prepare sandwiches
      - Activity: Cook hot dogs
      - Activity: Prepare canned soup
      - Activity: Prepare juice from frozen concentrate
      - Activity: Prepare Kool-aide
      - Activity: Pour milk/Kool-aide/juice from pitcher into cup/glass
    - Sub-environment: *Eating area*
      - Activity: Set table
      - Activity: Remove items from table after meal
      - Activity: Wipe off table
      - Activity: Use fork to spear food
      - Activity: Cut food with knife
      - Activity: Use spoon to scoop appropriate solid/liquid foods
      - Activity: Drink liquid from cup
      - Activity: Use napkin to wipe hands/face
      - Activity: Get in/out of chair
      - Activity: Pass items on request
      - Activity: Pour beverage from container to glass
      - Activity: Ask for more food/beverage
      - Activity: Ask to be excused from table
    - Sub-environment: *Living room*
      - Activity: Put magazines in magazine basket
      - Activity: Dust furniture
      - Activity: Vacuum rug
      - Activity: Pick up trash/old newspapers
      - Activity: Water plants
      - Activity: Straighten couch cushions
      - Activity: Return coasters to container

DOMAIN: *Community functioning*
- Environment: *Supermarket*
  - Sub-environment: *Parking lot/entrance area*
    - Activity: Remove seat belt
    - Activity: Unlock and open car door from inside
    - Activity: Exit automobile
    - Activity: Lock and close door
    - Activity: Unlock with key and open door from outside
    - Activity: Enter automobile
    - Activity: Put on seatbelt
    - Activity: Walk to/from automobile from/to entrance
    - Activity: Use pop vending machine outside supermarket
    - Activity: Enter push door
    - Activity: Exit automatic opening door
    - Activity: Place groceries in automobile
    - Activity: Return cart to supermarket
  - Sub-environment: *Aisle area*
    - Activity: Obtain cart
    - Activity: Push carts up and down aisle
    - Activity: Select needed grocery items
    - Activity: Ask clerk to weigh produce
    - Activity: Ask clerk for particular cut/weight of meat product
    - Activity: Receive cash for returnable bottles/cans
    - Activity: Obtain frozen food items from pull open freezer door section
  - Sub-environment: *Check out area*
    - Activity: Select open/shorter check out line
    - Activity: Move cart forward as line progresses
    - Activity: Remove items from cart and place on conveyor belt
    - Activity: Pay cashier for groceries and receive change
    - Activity: Carry groceries/push cart out to automobile

Figure 4. The ecological inventory process: Community functioning domain.

that educators have not selected goals on the basis of family priorities. For this reason, it is suggested that instructional personnel develop a list of possible activities. Parents should then be encouraged to indicate the degree to which they perceive the activities as critical (e.g., high, medium, or low preference), and/or rank order the five to ten highest priority potential IEP targets. While parental input alone should not dictate IEP goals, it should be a major consideration in the IEP development process.

Student Preference/Reinforcement Value Goals should also be selected on the basis of activities enjoyed or likely to be reinforcing to the student. Assume that the recreation/leisure inventory depicted in Figure 5 has been developed for Laura described in Case History #1, above. If there is evidence to indicate that Laura has sufficient residual hearing to perceive music and that she, in fact, likes music, playing a record might be selected as an IEP goal, rather than looking at a book. Similarly, if the second student, James, has difficulty working in high temperature areas, where he becomes irritable, easily fatigued and quickly off-task, select instead an IEP goal

DOMAIN: *Recreation/leisure*
- Environment: *Public library*
  - Sub-environment: *Desk/Entryway/Exit Area*
    - Activity: Enter push door
    - Activity: Enter turnstile
    - Activity: Return books
    - Activity: Check out books
    - Activity: Exit through push-bar electronic sensor
  - Sub-environment: *Book shelf area*
    - Activity: Scan shelf and select books
    - Activity: Look at books
    - Activity: Climb on ladder to reach book
  - Sub-environment: *Audio area*
    - Activity: Select record
    - Activity: Remove record from jacket and play
    - Activity: Attach headphone jack to record player or bank of headphone plugs and place headphones over ears
    - Activity: Select cassette tape/book
    - Activity: Play cassette tape and follow along in book
    - Activity: Return record or tape/book to shelf
  - Sub-environment: *Snack room*
    - Activity: Use pull-bottle pop vending machine
    - Activity: Open pop bottle
    - Activity: Use push-button snack vending machine
    - Activity: Open plastic wrappers
    - Activity: Find empty seat and consume snack
    - Activity: Look at newspaper
    - Activity: Operate dollar bill change machine
    - Activity: Obtain coffee from coffee pot
  - Sub-environment: *Parking lot*
    - Activity: Place books in book deposit box
    - Activity: Remove/put on seatbelt
    - Activity: Open/close door
    - Activity: Unlock door from inside
    - Activity: Unlock door from outside with key
    - Activity: Enter/exit automobile
    - Activity: Walk across parking lot to/from car

Figure 5. The ecological inventory process: Recreation/leisure domain.

such as cleaning tables in the eating area, rather than activities in the hot dishwasher area. While student preferences are not always easy to discern, efforts should be made to take this factor into consideration when selecting IEP goals.

Instructional Personnel Preference Professional judgments of teachers or therapist as to the most functional, meaningful, and appropriate goals for students should enter into the goal selection process. Teachers cannot totally abdicate decision making simply because increased efforts are being made to attend to parental and student concerns/interests. As the following example illustrates, teacher input regarding functional goals for students is critical.

At a recent IEP meeting for a 14-year-old female, who had severe handicaps, and who was visually and physically impaired, parents indicated that toileting was not a priority. They stated that, due to their daughter's size, it was easier for them to allow her to wear diapers and change her periodically, rather than attempt to transfer her to and from the toilet. The teacher, however, was aware that area group homes typically did not accept residents who could not toilet themselves. Because a possible subsequent environment for the student was a group home, the teacher felt it critical that the student be taught to toilet herself. Through their discussions, the parents and teacher reached a compromise: the parents would support the toileting IEP goal if the teacher included efforts to teach the student to assist in transferring from the wheelchair to the toilet seat and back. In this way, teacher input resulted in the inclusion of a potentially critical IEP goal activity.

In the above instance, teacher input to parents resulted in the IEP including a teacher preference goal. Not all negotiation attempts, however, are that successful. When families and practitioners disagree over IEP goals, staff members should first ask if family priorities are, perhaps, more appropriate than their own. If the teacher still feels strongly that a particular activity is functional and should be included on the IEP, negotiation efforts should be made to convince families of the objective need for such a goal. If this too fails, teachers are faced with two choices: 1) accede to parental requests that the goal be dropped; or 2) work toward the IEP goal at school, recognizing that it is not a priority at home. The latter action, of course, is quite drastic. At times, however, it is legitimate to take such action when staff members have a sound rationale for their position. While parental collaboration is preferred, it is possible for students to learn skills at school that are not reinforced/expected at home. At worst, students may learn to discriminate when such behavior is expected and perform it only in those situations. A better outcome, and one that is sometimes observed, is that student performance of an activity at school or in the community has prompted families to reconsider and make it a priority at home as well.

Frequency of Occurrence This refers either to the number of times an activity is required in a given environment or setting, or the number of environments or settings that require performance of a specified activity. In general, the more frequently an activity must be performed, the more functional it may be. Further, frequently occurring activities provide more natural practice opportunities, thus possibly promoting skill acquisition, maintenance, and generalization.

In the example inventories provided in Figures 2–5, it can be seen that walking to/from a car across a parking lot occurs in two inventories, as does the use of a vending machine, as well as scanning shelves to make a selection (supermarket and library). Thus, in considering only the above four inventories, these activities might be targeted as priorities. Further, activities such as setting the table, putting on/removing seatbelts, and entering/exiting automobiles might also be considered as possible priorities due to their frequent daily use.

Safety Concerns Setting activity priorities on the basis of the degree to which the activity will promote the safety of the student falls under the category of safety concerns. Obviously, activities such as riding in automobiles, crossing streets, traversing parking lots, climbing stairs, and using escalators can present potential dangers to students, especially those students whose visual and hearing impairments restrict their ability to attend to the typical warning signs (e.g., seeing approaching autos, hearing honking cars). Thus, practitioners might consider such safety concerns as priority IEP goals. While the severity of intellectual and sensory impairments might limit the extent to which students can perform the activities independently, adaptations (discussed below) might be considered that allow for partial participation and increased safety.

Social Significance As used here, social significance is a broad term that includes the extent to which an activity will enhance a student's social acceptability, promote interaction attempts from those near the student, or make the student appear less handicapped. This concern is of importance in that a major assumption of an ecological curricular approach is that students with severe handicaps should be prepared to function with nonhandicapped individuals in a wide variety of normalized environments. Thus, in a library setting, practitioners might target selecting and looking at books or listening to records. These are normal activities that would be socially acceptable and might, in fact, facilitate interactions with persons who are nonhandicapped.

The above six considerations, while not exhaustive, can provide practitioners with direction in determining IEP goal priorities. While no data exist to suggest whether the six considerations are equally important, or some more important than others, it may be possible to use a mathematical rating procedure to determine priority IEP goals. Table 1 presents such a priority ranking form. To use such a rating system, practitioners first generate a list of 10 to 15 possible priority activities. Instructional staff and parents then rate the activities according to the six priority considerations. Activities that are rated highest form IEP goals.

While such a procedure may assume incorrectly that all factors are of equal value, it does provide one means of setting activity priorities more objectively. Practitioners need to keep in mind, however, that if one or more criteria are particularly relevant in a given situation, the activity(ies) that best meet those criteria might be selected, despite a lower overall rating.

Step 6: Delineate the Skills Needed to Engage in a Targeted Activity

Once priority activities have been established, those activities need to be broken down into the component skills through a task analysis (TA) process. Task analyses represent a delineation of the skills necessary to perform any activity, arranged either in the order in which such skills would typically be performed by nonhandicapped individuals, or in a hierarchical (easy-to-difficult) order.

There are a number of ways in which tasks may be broken down. The simplest and most common form of task analysis (TA) is the sequential listing of steps. To employ this strategy, practitioners need only perform the activity themselves or observe others performing this activity. The task steps are then written down in the order

Table 1. Rating form for setting activity priorities

Activity:	Parent preference	Student preference	Practitioner preference	Frequency of occurrence	Safety concerns	Social significance	Total
1. Play records	2	3	1	2	1	3	12
2. Use seatbelt	3	1	3	3	3	1	14
3. Walk through parking lot	1	1	3	2	3	1	11
4. Use vending machine	1	3	2	2	1	2	11

(3 = high preference/frequency/safety/social; 2 = medium preference; 1 = low preference)

in which they occur. Figure 6 contains a sample task analysis in which the skills are delineated for using a vending machine.

An important consideration in any TA is the difficulty of a task "step." The nine phases or task steps in Figure 6 represent relatively large "chunks" of behavior. For many students, such steps would need to be reduced to smaller behavior samples. For example, the current Phase II, obtain two quarters, might be broken down further into the following skills:

IIa: Reach hand into pocket
IIb: Remove one quarter
IIc: Place quarter in other hand
IId: Reach into pocket again
IIe: Remove second quarter
IIf: Place second quarter in other hand

There are no empirically derived rules regarding the optimal task step size. However, a general rule of thumb is that the younger or more severely disabled the student, the smaller the recommended task step.

The "sequence of steps" task analysis can be taught as a total cycle, as indicated in Teaching Note 1 below Figure 6. A "total cycle" approach involves allowing students to attempt independently all skills during an instructional trial, providing the minimum level of corrective assistance required when students incorrectly perform any given task step. Again, a rule of thumb is that older and/or less severely disabled individuals (i.e., those likely to make more rapid progress) might benefit most from a total cycle approach (Sailor & Guess, 1983). Younger or more seriously disabled students (i.e., those likely to make slower progress) might require a strategy using a more structured variation of a sequential listing of steps.

Chaining approaches represent a variation upon the sequential listing of steps TA. Instructional personnel can employ either a forward or backward chain TA strategy. In a forward chain, the instructor allows a student to attempt the first task step independently and assists him or her through all remaining task steps (see Figure 6, Teaching Note 2). Once the first task step is independently performed to satisfy an established criterion, the student is allowed to attempt the first *two* steps, with assistance always provided on the remaining steps. In this manner, the response requirements are gradually increased until a student is able to perform all skills in a given activity.

In the vending machine area of the library during free time, the student will:

Phase 1: Walk to vending machine
Phase 2: Obtain two quarters
Phase 3: Place two quarters in slot
Phase 4: Push selector button/panel
Phase 5: Obtain pop can from bin
Phase 6: Check coin return slot for change
Phase 7: Place any change in pocket
Phase 8: Walk away from vending machine

Teaching note 1 (If total cycle): This is a "sequence of steps" task analysis. Instruction should be in a total cycle format, with students given an opportunity to perform all task steps on each instructional trial.

Teaching note 2 (If forward chain): This is a forward chain TA. Therefore, allow the student to independently attempt all phases above, and including the targeted phase for a given session, assist the student to perform all phases below that targeted for a given session.

Teaching note 3 (If backward chain): This is a backward chain TA. Therefore, assist the student through all phases above the targeted phase, allowing him or her to attempt that phase and all subsequent phases independently.

Figure 6. Task analysis: Task steps in using a coin-operated vending machine.

A second variation is a backward chain TA strategy. In this approach, a staff member assists a student through all but the last phase, then all but the last two phases, and so forth, until the entire sequence is independently performed (see Figure 6, Teaching Note 3). Thus, the major difference between these two chaining variations is the part of the chain in which the assistance is provided.

As stated earlier, task analyses can reflect simply a logically ordered sequence of steps, or an easy-to-difficult hierarchy. In the latter case, practitioners must go beyond a simple sequence-of-steps TA strategy in developing a task analysis. Figure 7 provides a task analysis based on a presumed easy-to-difficult strategy. Each phase objective represents a gradually increased supermarket search skill.

Step 7: Conduct a Discrepancy Analysis

Once a task analysis of needed skills for a particular activity is delineated, practitioners should determine those skills currently performed by students who have severe handicaps. This process, referred to as pretesting or establishing a baseline, al

2.167

When at a supermarket and given a heavily outlined pictorial representation of a grocery item, the student will find that item when:

Phase 1: No other items are on the shelf
Phase 2: Several other items are on the shelf
Phase 3: The item is among a 1' × 3' shelf full of different items
Phase 4: The item is on one of two presented 1' × 3' shelves of items
Phase 5: The item is anywhere within a 3' wide six-shelf section
Phase 6: The item is anywhere within two adjacent 6' × 3' six-shelf sections
Phase 7: Gradual increase in number of sections until students can search an entire row/aisle.

Teaching notes: Begin at easiest phase not passed by a student. Take student to subsequent phase once criterion reached on prior phase.

Figure 7. Task analysis based on an easy-to-difficult strategy: Learning to locate items in a grocery store.

lows staff members to determine the discrepancies between required skills and those skills already in a student's repertoire.

Task analyses that involve hierarchically ordered enroutes can be baselined or pretested in one of two ways. Staff members can begin testing at the easiest task step or phase objective, and progress until the student fails a phase, thus suggesting the initial instructional target. Another strategy is to begin testing at the most difficult task step or phase objective and move back down the task analysis until the phase is revealed at which a student passes.

On a sequential listing-of-steps TAs, teachers should allow students to perform each step independently in order to determine both the specific skills needed and those already in the learner's repertoire. Another variation of this strategy would be to note the amount of assistance required to perform a task step, should it not be performed independently (e.g., verbal cuing, partial physical guidance, full physical assistance).

Typically, two or three baseline trials are provided, with the criterion for passing a phase being all trials correctly performed. Since baselining is not teaching, students should receive neither reinforcers for correct performance nor correction of errors. Students should, however, receive intermittent reinforcers for task attempts, attending, and compliance, in order to maintain responding.

Step 8: Determine Necessary Adaptations

Once a discrepancy analysis has been conducted, and skills missing from a student's repertoire have been identified, a decision should be made as to whether adaptations are necessary to allow the student to perform the activity independently or to allow for at least partial participation in the activity (Baumgart et al., 1982). Often, students with severe handicaps, in particular those students with physical and/or sensory impairments, are excluded from instruction on functional activities when it appears hi[illegible] unlikely that they will be able to perform skills in the manner in which th[illegible] performed by nonhandicapped students. In that such instructional decisions unduly restrict students from participation in a wide variety of normalized activities, an alternative viewpoint is necessary.

Rather than exclude students from activities they might be unable to perform independently, instructional personnel serving students with severe and dual sensory impairments should adopt the principle of *partial participation* (Baumgart et al., 1982). This principle holds that, in cases where there is evidence to suggest that students may not be able to perform all required skills, adaptations should be considered that either compensate for skill deficits or allow for at least partial participation in functional, normalized activities.

There are a number of adaptations that can be made to either compensate for skill deficits or allow for partial participation (Baumgart et al., 1982; Brown, Branston et al., 1979). These include:

1. Creating adaptive/prosthetic aids
2. Adapting existing activity materials
3. Adapting skill sequences
4. Adapting rules
5. Utilizing personal assistance
6. Social/attitudinal adaptation

Each of these adaptations is discussed below.

Creating Adaptive/Prosthetic Aids This refers to the use of additional portable materials that compensate for skill deficits. There are numerous adaptive/prosthetic aids that creative staff members might develop. For example, in a situation where students with severe cognitive and dual sensory impairments are unlikely to acquire the coin discrimination skills necessary to use a vending machine, at least two adaptive/prosthetic aids could be considered. Imprints of quarters could be made of Brailon, a paper-like plastic material that is used with a heat forming process to produce raised materials. Students might be taught to place coins in the imprint in order to select the correct coins for use in the vending machine. Another adaptive aid would be to attach inside a wallet a slotted coin holder with all but the quarter-sized slots covered. Students might then be taught to compare coins to the slot size until two correctly sized coins (quarters) are selected and then inserted into the coin holder for use at the vending machine.

The number of adaptive/prosthetic aids is limited only by staff ingenuity. In an effort to provide several examples that might in turn spark staff members to develop even more creative alternatives, Table 2 is provided.

It should be noted that prosthetic/adaptive aids should be introduced only when it is clear that such additional materials are necessary. Because additional materials are required with these adaptations, portability can become a problem; thus, these aids should be employed only when judged necessary.

Adapting Existing Activity Materials Modifications of the materials typically used in the performance of an activity, although sometimes needed, may n[illegible]ys be nec-

2.169

Table 2. Sample adaptive/prosthetic aids

Problem skill/activity	Adaptive/prosthetic aid
1. Student's vision makes it difficult to look at a magazine.	1. Use a beam scope magnifier.
2. Required volume level for listening to radio/records/tape would disrupt others.	2. Use ear/head phones.
3. Nonverbal student with low vision and hearing impairments wishes to place an order at a fast food restaurant.	3. Use picture communication cards containing pictures with darkened, raised outline to place order.
4. Student with visual impairments and consequent lack of refined/precise upper extremity use often knocks equipment to the floor.	4. Dycem, a slip-resistant plastic material is placed between object (e.g. Simon game, plate) and surface.
5. Student is not able to determine which of two cards played in "War" wins the trick.	5. A number line is provided with which the student can compare cards played and determine higher value card.
6. Student "forgets" sequence of required vocational tasks.	6. Student carries a work-task sequence card with raised symbols for each job task to be accomplished. Student moves sliding tab down to next task as previous one is completed.

essary. Staff members occasionally have a choice of several materials and thus may be able to select materials that minimize difficulties for students. For example, in teaching pinball use, staff might select games that provide more auditory and/or visual input, (e.g., "fire power" versus "baseball" pinball games) that do not require movements that are as sophisticated (push one button versus move four-direction joystick while pushing another button), or that do not demand as quick a reaction (Space Invaders versus Defender). Other examples include low vision rather than standard sized playing cards, and selecting simple (one or two control button/knob) record players, TVs or other appliances rather than complex ones. It might not, however, always be possible to select simpler materials, and material adaptations are sometimes required.

The number of possible materials adaptations is virtually unlimited. In the tape player example discussed above, brightly colored, raised plastic tape could be attached to the end of the tape as a cue for its correct insertion by a student with residual vision (Hamre-Nietupski, Nietupski, Sandvig, Sandvig & Ayres, 1984). In that same example, color coded tape might also be attached to the volume control knob as a cue.

In general, adaptations that provide additional tactile cues, or that make visual or auditory cues more salient, can be considered for materials adaptations. Table 3 provides examples of some possible materials adaptations.

Table 3. Sample material adaptations

Problem skill/activity	Materials adaptation
1. The student does not discriminate the inside from the outside of shirts or jackets.	1. Velcro or different textured material is sewn into the inside collar of the clothing item.
2. The cassette tape player is frequently knocked off the shelf.	2. The cassette player is bolted to the shelf.
3. The student is not able to locate the light switch in a dark/dimly lit room.	3. A lighted on/off switch is used in place of a standard light switch.
4. The student does not place his or her clothes in the correct dresser drawer or section of the dresser drawer.	4a. Raised outlines of clothing items are attached to corresponding dresser drawers. 4b. Cardboard section dividers with raised outlines of corresponding clothing items are placed in each dresser drawer.
5. The student is not able to easily turn the magazine pages.	5. Pieces of tagboard or clear lamination are attached to the upper corners of each page; student wears rubber "thimble" on index finger.
6. The student cannot see the pitched softball to hit it.	6. A "beeper ball" is used in place of a standard softball.

Adapting Skill Sequences At times it is necessary to revise the typical order of performance of steps within an activity. Occasionally, simply rearranging the order of task step performance will compensate for student skill deficits. For example, students whose visual and motor impairments result in lengthy delays in obtaining their money from wallets, pockets or purses to pay for items at a fast food counter might be taught to have their money available prior to ordering. Within the same activity, if returning change to one's wallet, pocket or purse is time consuming, the student might be taught to place the change on their tray or into the bag containing their order, and then to return it to their pocket, purse or wallet once seated at their table. Staff members should carefully analyze where in the chain of skills students might be experiencing difficulties, and consider whether modifications in the sequence might ameliorate the problem.

Adapting Rules Modifying the guidelines that either formally or informally govern performance of an activity may be helpful. Many activities have such complex rules that they present insurmountable problems for students with severe handicaps. Rule adaptations may allow for at least partial participation, and are frequently possible in recreation/leisure activities where rules are somewhat more flexible.

Rule adaptations can take many forms. For example, in pinball, an informal rule followed by most pinball wizards is to press a flipper button only when the pinball approaches that particular flipper. Students with sensory impairments, however, might be taught the "rule" of constantly pushing/releasing both flipper buttons in order to increase the probability of hitting the pinball when it does, in fact, approach a flipper.

Several sample rule adaptations are contained in Table 4. As evidenced in these examples, such adaptations allow at least partial participation in the targeted activity.

Utilizing Personal Assistance This represents the most intrusive partial participation strategy. In essence, it involves another individual performing the problem skill for the student, or providing the student with considerable assistance in its performance. Because of its intrusiveness, use of this strategy should be restricted to those situations where less intrusive strategies are impossible or not feasible. For example, it is impossible to adapt all vending machines to highlight the location of the coin slot. Nor could a prosthetic aid conceivably assist in this situation. Thus, it might be the case that, when encountering novel vending machines, personal assistance may initially be required to complete this task step.

Baumgart et al. (1982) describe an example of personal assistance provided to an adolescent with severe handicaps who was totally deaf and blind. This student was receiving vocational training in a hospital setting where he was required to remove bandages from a perforated box and place them on a supply tray. The only problem step for this student was his inability to locate the materials. Personal assistance from a co-worker, who located materials and set up the work station, allowed this student to perform a valuable vocational task. Table 5 provides other examples of the use of this partial participation strategy.

Societal/Attitudinal Adaptations These involve efforts to improve the understanding, tolerance level, perceptions, and beliefs held by nonhandicapped persons toward their peers with severe handicaps. Often, nonhandicapped individuals either do too much for the person with severe handicaps whom they encounter, or are extremely intolerant or unaware of that individual's differences. In either case, a restricted degree of participation in normalized activities may result. Should these situations arise, staff members may need to provide information to nonhandicapped citizens that will enable them to interact in a more appropriate way with students who are severely disabled. Discussing more appropriate alternatives, demonstrating interaction attempts, providing written material, slide-shows, films or tapes often are necessary to improve attitudes of targeted groups. The reader is referred to Certo, Haring, and York (1984) for comprehensive information in this area.

To summarize, a variety of adaptations may be necessary to compensate for student disabilities and/or to allow at least partial participation in normalized, functional activities. Practitioners should consider the use of such adaptations when it is apparent that independent performance of activities in the "typical" manner is not reasonable or realistic for students with severe and dual sensory impairments.

Step 9: Develop An Instructional Program

Once steps 1–8 of the Ecological Curriculum Development Strategy have been completed, personnel are ready to develop instructional programs to teach the functional, age-appropriate, normalized activities targeted as IEP goals. An instructional program involves carefully developed responses to the following eight questions:

Table 4. Sample rule adaptations

Problem skill/activity	Rule adaptation
1. Student has difficulty discriminating between the king, queen and jack in a card game.	1. Size of deck is reduced by removing two of three types of face cards.
2. Student plays Uno out of turn.	2. "Pick Pile" is passed to student as cue to take turn.
3. The student cannot hit a pitched softball.	3. A "beeper ball" (material adaptation) placed on a batting "tee" rather than pitched.
4. The student is not able to complete the assigned vocational tasks in the time allotted.	4. Either the student is required only to perform *some* of the tasks or is allowed more time to perform all the typically required tasks.
5. The student is unable to find peers in a hide-and-seek game.	5. Peers are required to signal their location with a noisemaking object (e.g., a bell) as the student moves away from their hidden location.
6. The student cannot aim and hit the horseshoe post or dart ring from the customary distance.	6. The student is allowed to stand closer to the target.

Table 5. Sample personal assistance strategies

Problem skill/activity	Personal assistance
1. The student is not able to move the record player arm to the correct location on a record.	1. A nonhandicapped peer, also listening to the records, physically assists the student to perform this skill.
2. The student is not able to determine when traffic permits starting to cross the street.	2. The student takes the arm of a companion and starts to cross as his or her companion does so.
3. The student is not able to discern when to get off the bus on the bus route.	3. The student informs the bus driver of his or her destination.
4. The student is unable to carry her lunch tray from the school cafeteria line to her table.	4. A nonhandicapped peer partner carries her tray or places it on her wheelchair lap tray.
5. The student is not able to determine when a sufficient amount of water is in the sink for dishwashing.	5. A sibling turns off the water when it reaches the necessary level.
6. The student is not able to find the bases or run fast enough in a softball game.	6. A nonhandicapped peer runs for the student, or pushes his or her wheelchair, once the student hits the beeper ball off the tee.

1. What activity will be taught?
2. Why teach this activity?
3. What materials and training task arrangements will be used?
4. How will this activity be taught?
5. How will progress be verified?
6. What are the expected criteria (including accuracy, fluency, latency)?
7. How will generalization be promoted?
8. How will self-initiated performance be facilitated?

In essence, an instructional program can be considered the "working" IEP. That is, it provides the specific information to carry out programming on IEP goals on an ongoing basis. The scope of this chapter does not allow for an indepth discussion of each instructional program component, but a sample program is provided in the appendix at the end of the chapter. The reader interested in this area is referred to Sailor and Guess (1983), Snell (1983), and any of the "Madison Volumes," a yearly collection of papers and programs related to teaching students with severe handicaps (address provided in reference list).

The nine steps in an Ecological Curriculum Development Strategy involve careful observation of natural environments, and of the activities of nonhandicapped individuals in those environments. Based upon the information gathered from such observations, activities are prioritized and IEP goals selected; activities are task analyzed into component skills; adaptations are considered; and instructional programs developed. An ecological approach offers a process for the provision of systematic instruction on community-referenced, individually determined, chronologically age-appropriate, functional curricular content. Such an approach is advocated so that students with severe and dual sensory impairments will be prepared to participate as fully as possible in activities in natural environments, with maximized opportunities to interact with nonhandicapped peers.

EMPIRICAL SUPPORT FOR AN ECOLOGICAL CURRICULUM APPROACH

An ecological approach to curriculum development for persons with severe handicaps has been advocated only recently. Numerous writers have provided cogent and persuasive arguments for an ecological approach. Empirical research has, nevertheless, lagged behind. Part of the difficulty in developing the data base for such an approach is that, in one sense, the task is enormous. To claim definitively the superiority of one curricular approach over another requires carefully monitored longitudinal studies in which the effects of different program models are studied. In that such studies are time consuming, costly, and affected by a variety of factors such as student drop-out and contamination, no definitive statements regarding the effectiveness of various approaches can be made. In this regard, the ecological approach is no different from any other approach, including the sensory developmental or other models.

Despite the lack of substantiation for claims of clear cut superiority of an ecological curricular approach, there is a growing body of research that, while conducted on a smaller scale, suggests that an ecological approach has considerable merit. The purpose of this section is to discuss the extant research in this area.

Research Findings

Several research investigations provide at least indirect evidence as to the effectiveness of an ecological curriculum development strategy. These studies are considered to be indirect indices in that certain aspects, rather than the entirety, of an ecological approach have been examined. Specifically, the research discussed below either has examined the effects of teaching skills within a natural context (as opposed to within artificial settings) or has examined the effects of programmed variations in stimulus and response characteristics, based upon careful environmental (i.e., ecological) analyses. While these studies were not conducted with learners with severe handicaps who had dual sensory impairments, they did involve students who would be considered severely disabled.

Oliver and Halle (1982) conducted a study designed to assess the effects of instruction in the natural environment on sign language skill acquisition and generalization. In this study, a 7-year-old male with moderate retardation served as the subject. Prior to determining specific signs to teach, the investigators conducted a careful analysis of the classroom routine. This analysis yielded nine normally occurring daily language opportunities (e.g., signing "help" when in the bathroom and about to unfasten pants; signing "push" when playing on a scooter during play time; signing "eat" in order to receive lunch; signing "more" in order to receive another food portion). A multiple baseline design was used to evaluate the effects of the training procedures used to teach sign use during normal daily activities. Generalization probes across different trainers and across similar but nonidentical opportunities (e.g., signing "help" when zipping or buttoning a coat) were administered periodically. The results indicated a dramatic increase in student self-initiated sign use and a reduction in required trainer prompts and student errors following naturalized instruction. Sign initiations also generalized to a second trainer and to novel opportunities. Based upon these results, the investigators concluded that teaching in the natural environment within the context of normal activities may be useful in promoting both sign language acquisition and generalization.

Similar findings are reported by Horner and Budd (1985). In this study, an 11-year-old male with autism was taught to communicate wants via the use of manual signs. Training in the corner of the classroom resulted in no generalization to natural settings. Only when instruction was extended to natural training times was generalization noted.

Freagon and Rotatori (1982) compared the effects of natural versus artificial environmental training on self-care skill acquisition, maintenance, and generalization of ten adolescents with severe handicaps. A small group, matched pairs design was employed with the data analyzed through use of the exact test for Wilcoxen matched pairs. The results indicated that subjects trained during natural times and in natural training settings made significantly greater skill gains than those trained at unnatural times and settings. No significant differences, however, were found between the two groups with respect to maintenance and generalization.

A number of investigations into the effects of what has been termed *general case instruction* on generalized responding have been reported recently. General case instruction involves teaching students to perform specific skills across a number of exemplars that represent the range of stimulus and response variations within the response class under investigation. For example, in teaching vending machine use, instructional personnel using a general case methodology would carefully examine the range of vending machines students might encounter. They then would select a sample of vending machines that represent the range of stimulus and response variations (e.g., location and orientation of coin slot, type of item display, cost of items, type of activation response), and teach students to operate a representative set of the various exemplars. By training in this manner, it is expected that generalized responding to the broader response class will be enhanced.

An ecological approach forms the core of general case instruction in that careful observation of the environment yields information as to appropriate instructional targets. Thus, the general case research discussed below relates to an ecological curriculum development approach.

Horner and McDonald (1982) conducted a study in which they compared the effects of general case versus single instance instruction on the generalized vocational skill performance of four adolescents with moderate/severe handicaps. The authors examined twenty different types of biaxle electronic capacitors that students were to crimp and cut as part of their vocational skill curriculum. The capacitors are formed by two wires which emanate from a metallic head. These capacitors differed in size, shape, color, and in a variety of other characteristics. The authors identified three capacitor variables that were logically associated with performance: head size, head shape, and distance between leads. General case instruction involved random presentations of any one of three capacitors that sampled the range of stimuli within the three variable clusters. In contrast, single case instruction involved training on only one capacitor exemplar. A multiple baseline mirror design across the four students indicated that general case instruction was vastly superior to single instance instruction in promoting generalized responding to untrained exemplars. Furthermore, their results suggested that errors made on untrained exemplars were functionally related to the restricted range of training stimuli students encountered in single instance training. Thus, the authors concluded that generalized responding can best be attained by carefully selecting training exemplars that sample the range of stimulus and response characteristics present in the general response class.

Sprague and Horner (1984) extended work in this area by comparing the effects of single instance versus multiple instance versus general case instruction on the generalized use of community vending machines. This program involved six adolescents with moderate to severe retardation, two of whom were legally blind. Single instance instruction involved training on one particular vending machine. Multiple instance instruction involved concurrent training on three different vending machines that did not sample the range of stimulus and response variations. General case instruction involved training on three vending machines that did, in fact, embody the full range of variations in stimulus features and response requirements. A single-subject, split multiple baseline design again yielded evidence as to the superiority of general case instruction in promoting a generalized response by all six students to unfamiliar vending machines. The results of this study further underscore the importance of careful environmental analysis in that only instruction on a representative sample of multiple instances resulted in generalized performance.

McDonnell, Horner, and Williams (1984) compared the effects of three instructional formats on the generalized purchasing skills of four adolescents with moderate to severe handicaps. In one condition, students role-played grocery purchasing skills in the classroom. The second instructional format involved classroom role-playing combined with slide training simulation based on general case analysis principles. In the third condition, students received general case slide training combined with training at an actual grocery store. The results indicated that the general case slide training combined with instruction in the natural environment was most effective in promoting generalized purchasing skills. These results not only suggest the effectiveness of ecological analysis, but also suggest the need for instruction in natural environments.

The results of studies conducted by Horner and his colleagues provide impressive evidence of the need for ecological observations in determining instructional targets. Their research, combined with that conducted by the other investigators cited above, would seem to suggest that practitioners need to identify and teach across the variations students might encounter in natural settings, and to provide instruction in natural environments at natural times if generalized responding is to be achieved. While the extant literature does not provide definitive evidence as to the superiority of an ecological approach over other curriculum development strategies, it does provide a firm foundation as to the utility of this approach. Further empirical investigations, along the lines discussed below, should yield more definitive conclusions.

FUTURE RESEARCH NEEDS

A number of research questions should be addressed in evaluating an ecological approach. On a large scale, a comparison of the post-school outcomes for students with severe handicaps on the basis of instructional approach should be conducted. Specifically, one might examine whether post-school vocational outcomes (sheltered versus nonsheltered employment, pay received), domestic outcomes (institutional versus nursing home versus group home versus sheltered apartment), community functioning outcomes (use versus nonuse of community stores, transportation, and other community services) and recreation/leisure outcomes (use of normalized versus handicapped-only recreation options) differ on the basis of instructional approach.

2.173

While it is perhaps unrealistic to believe it possible to randomly assign students to various approaches and track their outcomes after 18–21 years of instruction, it may be possible to capitalize upon the naturally occurring "studies" available. That is, much along the lines of the investigation of the effects of regular school integration (Brinker & Thorpe, 1984), a large scale study could compare outcomes in districts that have employed an ecological, community-based approach to outcomes in districts adopting other approaches. While such research efforts are fraught with logistical and methodological problems, they can provide partial evidence supporting or refuting the claims of various approaches.

On a slightly smaller scale, individual school districts should be encouraged to conduct their own follow-up evaluations of graduates. Brown (1984) has reported follow-up study results from the Madison, Wisconsin Metropolitan School District. He indicates that, from 1971–1978, only one of twenty graduates with moderate to severe/profound handicaps entered nonsheltered employment. From 1978 on, however, concurrent with the implementation of a community-based program based upon an ecological model, ever increasing percentages of graduates have entered nonsheltered post-school employment options. Such findings, while not derived from tightly controlled research efforts, provide supporting data on a program's effectiveness. Many more such descriptive research efforts are needed from the numerous programs in the nation utilizing an ecological approach.

A variety of areas should be addressed through more tightly controlled, single subject or small group designs. First, studies along the lines of those conducted by Horner and his colleagues should be conducted with students with severe handicaps and dual sensory impairments. Very little published research is available on functional skills training with this subgroup.

Second, the principle of partial participation, while frequently discussed, has seldom been demonstrated empirically. Studies are needed to document the effectiveness of the various partial participation strategies. This is particularly true in reference to students with dual sensory impairments. Examples of empirically verified adaptations in the four domains could greatly assist practitioners who may adhere to the approach, yet not know how to carry it out in particular situations.

Of additional interest would be a documentation of the *acceptability*, to parents and significant others, of such partial participation strategies as personal assistance. Social validity data would be useful on parental reaction to providing assistance and allowing a student to partially participate, as opposed to performing the entire activity for the student.

An additional area of inquiry might focus on the reaction of society in general to viewing persons with severe handicaps engaged in functional, community-referenced, age-appropriate activities. Bates, Morrow, Panscofar, and Sedlak (1984) have conducted a preliminary investigation into this area. They had members of a general education class for prospective teachers view a person with Down syndrome engaged in either functional or nonfunctional activities. The subjects then responded to a questionnaire regarding their views on estimated IQ, future earning capacity, best residential options, likely employment options, and best classroom location. The group that viewed the person with Down syndrome engaged in functional activities predicted significantly higher levels of competence than that viewing participation in nonfunctional activities. Similar research, conducted with nonhandicapped individuals who work, travel, recreate and live alongside persons with severe handicaps would be useful in order to document the social validity of an ecological approach.

Finally, research is needed to identify the most critical considerations in IEP goal selection. As stated above, ecological inventories generate an enormous number of potential teaching targets. To date, only suggestions regarding strategies for setting priorities and selecting IEP goals are available. Data-based decision rules would greatly assist teachers in selecting what would, in fact, constitute the most functional, critical activities for instruction.

SUMMARY

This chapter has discussed an ecological approach to curriculum development for students who are severely handicapped and have dual sensory impairments. This approach has been defined, a rationale for its use has been put forth and a nine-step process for its implementation has been presented and illustrated with examples. A review of related research and suggestions for further inquiry have been provided. In the authors' view, an ecological approach is extremely applicable to students with dual sensory impairments. Such a curriculum development strategy has great potential for preparing students to live, work, and recreate more independently in natural environments. The challenge facing educators is to convert that potential to reality.

REFERENCES

Alberto, P.A., & Troutman, A.C. (1982). *Applied behavior analysis for teachers.* Columbus, OH: Charles E. Merrill.

Bates, P., Morrow, S.A., Pancsofar, E.L., & Sedlak, R. (1984). The effect of functional vs non-functional activities on attitudes/expectations of non-handicapped college students: What they see is what they get. *The Journal of The Association for Persons with Severe Handicaps, 9*(2), 73–78.

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *The Journal of The Association for the Severely Handicapped, 7*(2), 17–27.

Brinker, R.P., & Thorpe, M.E. (1984). Integration of severely handicapped students and the proportion of IEP objectives achieved. *Exceptional Children, 51*(2), 168–175.

Brown, L. (1984). Preparing severely handicapped people to live, work, and play in the community. Presentation at the 31st Annual ARC Iowa State Convention. Des Moines, IA.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979). A strategy for developing chronologically age appropriate and functional curricular content for severely handicapped adolescents and young adults. *Journal of Special Education, 13*(1), 81–90.

2.174

Brown, L., Branston-McLean, M.B., Baumgart, D., Vincent, L., Falvey, M., & Schroeder, J. (1979). Using the characteristics of current and subsequent least restrictive environments in the development of curricular content for severely handicapped students. *AAESPH Review, 4*(4), 407–424.

Certo, N., Haring, J., & York, R. (1984). *Public school integration of severely handicapped students: Rational issues and progressive alternatives.* Baltimore: Paul H. Brookes Publishing Co.

Ford, A., Brown, L., Pumpian, I., Baumgart, D., Nisbet, J., Schroeder, J., & Loomis, R. (1984). Strategies for developing individualized recreation and leisure programs for severely handicapped students. In N. Certo, N. Haring, & R. York (Eds.), *Public school integration of severely handicapped students: Rational issues and progressive alternatives* (pp. 245–276). Baltimore: Paul H. Brookes Publishing Co.

Freagon, S., & Rotatori, A.F. (1982). Comparing natural and artificial environments in training self-care skills to group home residents. *The Journal of The Association for the Severely Handicapped, 7*(3), 73–86.

Guess, D., Sailor, W., & Baer, D.M. (1977). A behavioral-remedial approach to language training for the severely handicapped. In E. Sontag, J. Smith, & N. Certo (Eds.), *Educational programming for the severely and profoundly handicapped* (pp. 360–377). Reston, VA: Division on Mental Retardation, The Council for Exceptional Children.

Hamre-Nietupski, S., Nietupski, J., Sandvig, R., Sandvig, M., & Ayres, B. (1984). Leisure skills instruction in a community residential setting with young adults who are deaf/blind severely handicapped. *The Journal of The Association for Persons with Severe Handicaps, 9*(1), 49–54.

Hawkins, R.P., & Hawkins, K.K. (1981). Parental observations on the education of severely retarded children: Can it be done in the classroom? *Analysis and Intervention in Developmental Disabilities, 1*, 13–22.

Holvoet, J., Guess, D., Mulligan, M., & Brown, F. (1980). The individualized curriculum sequencing model (II): A teaching strategy for severely handicapped students. *The Journal of The Association for the Severely Handicapped, 5*, 325–336.

Horner, R.H., & Budd, C.M. (1985). Acquisition of manual sign use: Collateral reduction of maladaptive behavior and factors limiting generalization. *Education and Training of the Mentally Retarded, 20*(1), 39–47.

Horner, R.H., & McDonald, R.S. (1982). Comparison of single instance and general case instruction in teaching a generalized vocational skill. *The Journal of The Association for the Severely Handicapped, 7*(3), 7–20.

Madison Volumes, Madison, WI: Metropolitan School District, 547 West Dayton Street, Madison, WI 53703.

McDonnell, J.J., Horner, R.H., & Williams, J.A. (1984). Comparison of three strategies for teaching generalized grocery purchasing to high school students with severe handicaps. *The Journal of The Association for Persons with Severe Handicaps, 9*(2), 123–133.

Oliver, C.B., & Halle, J.W. (1982). Language training in the everday environments: Teaching functional sign use to a retarded child. *The Journal of The Association for the Severely Handicapped, 7*(3), 50–62.

Sailor, W., & Guess, D. (1983). *Severely handicapped students: An instructional design.* Boston: Houghton Mifflin.

Snell, M.E. (Ed.). (1983). *Systematic instruction of the moderately and severely handicapped* (2nd ed.). Columbus, OH: Charles E. Merrill.

Sprague, J.R., & Horner, R.H. (1984). The effects of single instance, multiple instance and general case training on generalized vending machine use by moderately and severely handicapped students. *Journal of Applied Behavior Analysis, 17*(2), 273–278.

W[illegible]ch, B.B., & Voeltz, L.M. (1982). *Longitudinal leisure skills for severely handi[illegible]ed [illegible]ers: The Ho'onanea curriculum component.* Baltimore: Paul H. Brookes Publis[illegible]

Appendix

SAMPLE INSTRUCTIONAL PROGRAM

Student Description

Doug is a fourteen-year-old male who is severely retarded. He has no sight but does hear with amplification. He resides in a group home with three other residents who have moderate to severe disabilities.

What activity will be taught?

The terminal objective for the student is as follows: Given the following clothing items that have been washed and dried (pairs of socks, underpants and undershirts), the student, while in his bedroom in front of his dresser, will fold the items and place them in the correct dresser drawer in the divided drawer section marked with Velcro outlines of the corresponding clothing items, within 30 seconds per item on 5 consecutive occasions. The task analysis for this activity is as follows:

Phase I: The student will fold and put away socks using the following sequence of actions:

Part 1: Lay one sock flat on dresser top.
Part 2: Lay second sock on top of first sock.
Part 3: Fold socks in half from top to toe.
Part 4: Locate and open dresser drawer which is marked with Velcro outline of socks.
Part 5: Locate drawer section marked with Velcro sock outline.
Part 6: Place socks flat in corresponding drawer section.
Part 7: Repeat parts 1–3 and 5 and 6 with all remaining pairs of socks.
Part 8: Close dresser drawer.

Phase II: The student will fold and put away underpants using the following sequence of actions:

Part 1: Lay underpants flat on dresser, waist-band facing student.
Part 2: Fold underpants in half, right to left.
Part 3: Locate and open dresser drawer marked with Velcro outline of underpants.
Part 4: Locate drawer section marked with Velcro underpants outline.
Part 5: Place underpants flat in corresponding drawer section.
Part 6: Repeat parts 1 and 2, 4 and 5 with all remaining underpants.
Part 7: Close dresser drawer.

Phase III: The student will fold and put away undershirts using the following sequence of actions:

Part 1: Lay undershirt flat on dresser top, bottom toward student.
Part 2: Place palm of hand on middle of shirt, top half.

Part 3: Grasp right sleeve with right hand and fold to left until covering left sleeve.
Part 4: Slide left hand down to middle of shirt, bottom half.
Part 5: Grasp right edge of bottom half of shirt and fold to left until covering left bottom half.
Part 6: Place left hand on top half of folded shirt.
Part 7: Grasp bottom half with right hand and fold up until covering top half.
Part 8: Locate and open dresser drawer with Velcro undershirt outline.
Part 9: Locate drawer section with undershirt outline.
Part 10: Place undershirt flat in drawer section.
Part 11: Repeat parts 1–7 and 9 and 10 with all remaining undershirts.
Part 12: Close dresser drawer.

Teaching Notes: Teach one phase to criterion at a time, using a total cycle training format. Frequently review previously acquired phases when teaching new phases.

Why teach this activity?

This IEP goal was selected for several reasons. First, it is an age-appropriate skill performed by nonhandicapped adolescents. Second, it is a skill needed in semi-independent apartment living arrangements, a possible subsequent environment for the student. Third, the group home staff have stated this to be a priority. Doug needs considerable assistance or else his room is a mess and he is unable to find the clean clothes he needs each day. Fourth, if Doug acquires this skill, it will give him an opportunity to receive social reinforcement from his roommate, who likes to keep his section of the room neat and becomes upset when Doug does not do so.

What materials and training task arrangements will be used?

The materials are specified in the task analysis. As indicated, material adaptations have been made in order to compensate for Doug's visual impairment. Specifically, Velcro outlines on the dresser and on drawer dividers will serve as the cues for appropriate garmet storage areas. Personal assistance is provided for matching socks, since Doug's blindness prevents him from matching socks on the basis of color.

Training will be conducted three times per week in the simulated domestic living area of school. Once per week Doug will receive training in a community residential location, occasionally including his own group home.

How will this activity be taught?

A total cycle approach will be attempted. Doug will be given an initial verbal cue (e.g., "Doug, let's put away your laundry"). Doug will then attempt each task step. When errors occur, the following instructional hierarchy will be employed: 1) *Indirect cues* ("What do you do next?"); 2) if indirect cues fail to produce a correct response, a *direct verbal cue* will be used ("No, Doug, fold the socks in half"); 3) if direct verbal cues fail, the trainer will repeat the direct verbal cue and *partially physically assist* him to perform the task step; 4) *full physical guidance* will be provided if partial assistance fails. Completion of the cycle will result in verbal praise and access to reinforcing break time activities.

How will progress be verified?

A data sheet indicating each step in the task analysis will allow the charting of progress. Instructors will use a point system to record the level of assistance needed for the student to perform the task steps (4 points, independent; 3 points, indirect cue; 2 points, direct verbal cue; 1 point, partial physical assistance; 0 points, full assistance).

What is the expected criterion?

A fluency criterion of 30 seconds per item was targeted initally. This fluency level, while not similar to the time required by nonhandicapped adolescents (5–10 seconds), was considered acceptable to the group home staff.

To develop fluency, a timer will be used. Gradual approximations toward the 30-second fluency level will be reinforced with praise and access to preferred activities.

How will generalization be promoted?

Training will be conducted concurrently at school, in the group home and at other community residences. Verbal cues, materials, and trainers (school and group home staff) will be varied from trial to trial or session to session. Thus, a form of general case instruction will be provided.

How will self-initiated performance be facilitated?

Saturday is laundry day in the group home. Eventually, Doug will be given a tactile Velcro picture "schedule" of chores he is expected to complete. He will be taught to follow the schedule and thus put away the clothes he just washed and dried.

Rainforth, B. York, J., & MacDonald, C. (1992). Collaborative instructional design. B. Rainforth, J. York, & C. MacDonald, (Ed)., Collaborative teams for students with severe disabilities. (p. 179-202). Baltimore: Paul H. Brookes.

P.O. Box 10624. Balt MD
21285-0624

2.177

7

Collaborative Instructional Design

The previous chapters in this section have addressed team tasks that lay the foundation for the team's ultimate responsibility: providing instruction. As used in this chapter, the term "instruction" refers to the intervention methods associated with each of the various disciplines, as well as the more multifaceted interventions designed by an educational team collectively. In educational settings, the instructional strategies associated with each discipline are among the most significant contributions team members make in the collaborative teamwork process. Because integration of multiple and varied perspectives increases the magnitude of instructional effectiveness, a team's diversity truly is its strength. The collaboration and interdependence required for intentional planning, systematic decision making, role release, and ongoing role support are challenging, particularly for new teams. Professionals who previously worked autonomously must reach consensus with others from varied personal and professional backgrounds representing different philosophies and experiences. As discussed in other chapters, the ultimate goal of education for students with severe disabilities is to enable them to participate in a variety of home, school, and community routines, with a variety of people, using the supports and responding to the cues that occur naturally in those settings. Therefore, the benefits of professional contributions are maximized when a team assumes responsibility for integrating instructional strategies from the component disciplines into a coordinated approach that can be applied in a variety of natural environments and activities.

To ensure normalization for students with severe disabilities, the philosophy of "only as special as necessary" must guide decisions about instruction (Taylor, 1988). To understand the practical implications of this tenet, it is useful to consider some of the dimensions along which instruction may vary in educational environments. Understanding the continuum of "best practices" found in general education and special education will enable collaborative teams to design interventions that are both effective and acceptable, and therefore normalizing. Collaborative teams that are planning integration of students with severe disabilities into general education programs will benefit from efforts to learn the specific instructional philosophies and current best practices that are accepted in the "target" environments of those students.

2.178

Although it may initially appear that there are significant differences between the approaches used in general education and in special education, there is growing understanding of the similarities between the two fields. For example, special educators have "borrowed" cooperative learning strategies (Johnson & Johnson, 1987) from general education, and have found that these strategies are highly effective in facilitating both integration and learning for students with a variety of disabilities. Special education's community-referenced instruction was conceptualized in much the same way as general education's whole language instruction and experiential learning strategies. Building upon these similarities helps to promote acceptance of students with severe disabilities into the general education community.

Differences between general education and special education philosophies may arise around issues of who directs learning experiences, who is the source of knowledge, and how the learning environment is structured. For example, typical early childhood settings often have stimulating environments where children direct their own learning through processes of experience and discovery (Yonemura, 1986). Adults arrange the environment to facilitate learning and cooperative relationships among children, but play very subtle roles in instruction. Although secondary academic classes often exemplify the adult-centered, expository approach in which teachers lecture while students take notes, there is increasing recognition that student-centered, self-directed, cooperative, and experiential learning are best practices in both elementary and secondary education (Goodlad, 1984).

In contrast, direct and systematic instruction is considered a best practice in special education. In its original form, adults controlled most aspects of the learning situation, including task selection, preparation of materials, use of prompts, determination of acceptable performance, and schedules of rewards. Special educators have identified difficulties inherent in this approach, however. After intensive use of direct and systematic instruction, students with severe disabilities often need additional instruction to respond to natural cues and correction procedures (Ford & Mirenda, 1984). When programs are less structured and use incidental teaching procedures, young children with disabilities spend more time engaged in learning activities, which translates into greater achievement (McWilliam, Trivette, & Dunst, 1985). Self-direction is now seen as an essential element of effective intervention programs for students with severe behavior problems (Meyer & Evans, 1989). At the same time, systematic instruction has proven necessary and effective for teaching children and adults who were once considered "ineducable" (Kauffman, 1981; Snell, 1987). Collectively, this information indicates that systematic instruction is an important teaching technology for students with severe disabilities, but it must be used cautiously with careful attention to the least restrictive alternative for each individual student.

Systematic instruction and data-based decision making also represent an analytical approach to education as a "science." In contrast, the "art" is evident when a master practitioner acts intuitively, sometimes leaving observers awestruck at the master's apparently magical abilities (Watts, 1983; Yonemura, 1986). The artist is highly creative, easily devising new strategies, making decisions about what strategy will be effective under which circumstances, and solving problems before a problem is even evident to others. While

analytical approaches to instruction have been criticized as too rigid and technocratic, intuitive approaches have been criticized as too idiosyncratic. After working with and observing scores of practitioners, the authors have concluded that the most effective members of educational teams use a combination of intuitive and analytical approaches. Analytical approaches enable practitioners to define needs and possible solutions and to evaluate the effectiveness of those instructional solutions; intuitive approaches are necessary when solutions are not predictable and when traditional solutions are not effective. The combination enables team members to expand their current practice and discover more effective strategies, but also enables them to analyze what did or did not work and why. The latter is particularly important when a team of people is responsible for supporting students. In contrast with autonomous practitioners, individuals working as members of a collaborative team must be able to identify and communicate the reasoning and subtle cues that influenced their decisions, the specific steps that elicited the desired participation from a student with learning difficulties, and the precise distinctions between the strategy that worked and the ones that did not. Only when this occurs can a collection of people operate as a team that consistently guides students with disabilities, rather than confuses them.

Although individual learning styles become evident during assessment and instruction, generally it can be assumed that students with severe disabilities will have difficulty learning to participate in activities when given only natural cues, loose structures, and intermittent instructional opportunities. Therefore, educational teams must make deliberate decisions about instructional design, such as how often to provide instruction, which cues or prompts to use, and when to fade the cues or prompts. This chapter provides an overview of principles and strategies of systematic instruction, and illustrates how they can be combined with strategies associated with the disciplines of occupational therapy, physical therapy, and speech/language therapy. Examples also incorporate strategies rooted in general education instructional design, such as self-direction, incidental teaching, and cooperative learning, which are effective as well as normalizing for students with severe disabilities. Albano (1983) found that written instructional procedures and student performance data were essential tools for communication among members of collaborative educational teams. To facilitate such communication, this chapter provides a variety of formats for writing procedures and recording data. Figure 7.1 shows the steps that collaborative teams follow in designing instructional programs.

This chapter provides only an introduction to the extensive information currently available on systematic instruction. Readers are referred to other sources such as Bailey and Wolery (1989), Browder (1991), Ford et al. (1989), Ottenbacher (1986), Powell et al. (1991), Reichle, York, and Sigafoos (1991), and Snell (1987) for more thorough discussions of instructional strategies, data collection and analysis procedures, and other formats for recording this information.

PRINCIPLES OF SYSTEMATIC INSTRUCTION

Considerations in design of systematic instruction include how often and where instruction will occur, how the student will be prepared for instruction, what system and type of cues and prompts will be used

2.179

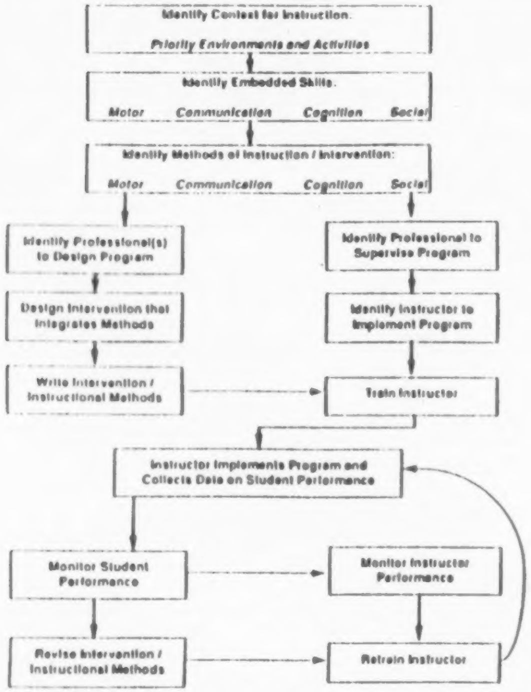

Identify Context for Instruction.
Priority Environments and Activities
Identify Embedded Skills.
Motor
Communication
Cognition
Social
Identify Methods of Instruction / Intervention:
Motor
Communication
Cognition
Social
Identify Professional(s) to Design Program
Identify Professional to Supervise Program
Design Intervention that Integrates Methods
Identify Instructor to Implement Program
Write Intervention / Instructional Methods
Train Instructor
Instructor Implements Program and Collects Data on Student Performance
Monitor Student Performance
Monitor Instructor Performance
Revise Intervention / Instructional Methods
Retrain Instructor

Figure 7.1. Steps to design comprehensive instructional programs

to elicit the desired performance, what adaptations will be used to enhance performance, and how performance will be assessed. Guidelines for making decisions about who will provide instruction and how instructors are prepared to provide collaborative instruction are presented in Chapter 8.

How Often and Where Will Instruction Occur?

As discussed in Chapter 2, students with severe disabilities tend to learn new skills slowly and have difficulty transferring learning to new situations. The conclusion of that discussion was that, to be effective, instruction must be provided frequently in natural situations. The traditional approach of providing *massed trials* (many repetitions in a short time period, e.g., 30 minutes) addresses the need to accelerate learning, but usually occurs in artificial contexts and thus hampers application and generalization of skills. *Distributed trials* (repetitions spread over a longer time period, e.g., a day) supports instruction in a variety of applied settings, and are as effective as massed trials to promote skill acquisition if equal numbers of learning opportunities are provided (Mulligan, Lacy, & Guess, 1982). When planning instruction is based on distributed trials, however, there is danger that instruction on priority skills may get lost in the bustle of the daily routine and will not receive sufficient attention. Therefore, the team must plan intentionally to ensure sufficient instruction. An effective planning strategy is to construct a matrix in which skills corresponding to individualized education program (IEP) objectives are listed on one axis, the day's schedule of activities are listed on the other axis, and instructional opportunities and considerations are noted in the matrix (Guess & Helmstetter, 1986). An activities-skills matrix for Kristen shows when and where she will receive instruction on all her IEP objectives (Table 7.1). Kristen's team found the matrix invaluable to get the "big picture" of how her IEP would be implemented during her daily routine.

For any activity or routine, the team may wish to examine opportunities or priorities more closely, and begin planning for instruction. One strategy is to use the same activity or task analysis as was used for the ecological inventory and student assessment (see Chapter 5). Another strategy is to use a Related Services Planning Sheet to focus particular attention on the general outcomes of occupational, physical, and speech-language therapy, which were discussed in Chapter 4. The Planning Sheet contains columns to note transitions, positions, participation, comprehension, expression, and social interactions for one student in multiple activities or multiple students in one activity. The Planning Sheet is particularly useful when teams are either trying to increase the type and amount of instruction during an activity or trying to establish balance among competing needs. Kristen's team used the Planning Sheet to examine the morning arrival and play routine, which presented so many opportunities for instruction that there was a danger of trying to do too much. Besides Kristen, there were also children with mild disabilities who received instruction during these routines, so the Planning Sheet helped the team keep a perspective on the needs of all the children. The priorities to be addressed during this routine are shown in Table 7.2.

How Will the Student Be Prepared for Instruction?

Preparing the student might entail physical preparation such as ensuring the student is properly positioned for participation. Students with physical disabilities need to have regular opportunities to change position and need to use positions that match the physical demands of activities (Rainforth & York, 1991). Table 7.3 presents considerations in selecting positions and positioning equipment for students with severe disabilities, with examples for two students participating in leisure activities. By asking the questions listed in the table, Jamal's team realized that he spent his entire day sitting, and that some alternative positioning was necessary and feasible. In addition to position changes that were a natural part of Jamal's personal hygiene routine, the team determined that he could also use a sidelying position during Choir and a standing position during Spanish, Home Economics, and Horticulture classes. The team was not satisfied yet with the frequency or duration of alternatives to sitting, and agreed to continue looking for other opportunities. Table 7.4 shows Jamal's weekly schedule, in which information about positioning was inserted.

BEST COPY AVAILABLE

Table 7.1 Activities / skills matrix for Kristen *

Time and Activity	Objectives from IEP												
	Pants down/up	use toilet	Pullover top	Say "hi."	Reject toss	Request "more"	Make requests	Choose Item	Palmar grasp	Pincer grasp	Sidesit	Stand and [illegible]	Two-hand [illegible]
8 30 A M Arrival			X	X	I		help coat						bag
Bathroom	X	X			I		help wash						
Jobs					I								materials
Free play					I	three times	Ernie, paint	[illegible] (toys)			X	four times	toys
9 00 A M Opening				X	I		G	G	marker	X			
9 30 A.M. Story					I		G	G			X	one time	
9 50 A M Gross motor					I	G	G				G	two times	G
10 10 A M Bathroom	X	X					help wash						
10 20 A M Fine Motor					I	G	paint	one time	marker	X			G
10 45 A M Snack			X	X	I		cookie cracker cheese	one time	cup	after wearing splint			materials
11 15 A M Bathroom	X	X	X		I		help wash		tooth-brush [illegible]				
Clean up							Ernie		lotion		X	one time	
11 30 A M Departure			G				help coat						G
Specials			G	G	G		G	G	G		G	G	X

*Key: X, provide instruction; I, as incidents arise, G, generalization opportunity.

Table 7.2 Related services planning sheet for three students in kindergarten

Teacher: Jill and Cathy **Activity:** Free play **Time:** 8 30-9 00

Students	Transitions	Positions	Participation	Interactions	Comprehension	Expression
Kristen	Ask another child to walk with Kristen to toy shelves Staff prompt her to kneel and stand correctly.	On floor: sidesitting, no w-sitting	Carry baskets and large toys with two hands.	Continue turn-taking by requesting "more" (involve other children).	Follow specific directions: go get ___, give me ___, let's go to ___.	Choose one of two toys by reaching for preference. (involve other children).
Turner		Discourage w-sitting (OK occasionally).	Use fingertip grasp and refined release.	Encourage use of toys for representational play (e.g., for playing house dress up, cars).	Respond to verbal directions given to the group	Indicate choice of toys or next activity to playmate.
Rex					Respond to verbal directions given to the group	Bring toy to peer and make request "Want to play with ___?"

BEST COPY AVAILABLE

Table 7.3 Considerations in selecting positions and positioning equipment

Considerations	Ted - Baking cookies	Joan - Gardening
Proposed Position	**Sitting**	**Kneeling**
1 What positions do nondisabled peers use when they engage in the activity?	Usually standing/walking Sometimes sitting (but with hips at height of table/counter)	Standing, stooping, kneeling/hands and knees
2 Which of these positions allow easy view of and access to activity materials and equipment?	Standing is better than sitting at table	Kneeling seems most versatile Could build raised garden bed to allow sitting on edge, transfer from wheelchair
3 Do the positions allow for proximity to peers?	Yes, for sitting or standing Peers will probably stand	Yes, peers can garden in adjoining areas/rows
4 Do the positions promote efficient movement as needed to perform the task?	Standing/walking much better than sitting/wheeling	Once sitting or kneeling, Joan can plant/weed/harvest an area, then scoot to next
5 What positions provide alternatives to overused postures or equipment?	Standing is best Ted spends too much time sitting	Kneeling is a good change Joan sits for most activities
6 If positioning equipment is required, is it unobtrusive, cosmetically acceptable, and not physically isolating?	Wheelchair and supine stander are both large Could use kitchen chair but will lose mobility When stander is vertical, Ted can stand close to counter, tables Wheelchair allows mobility around kitchen	Garden kneeling stool is unobtrusive, used by people without disabilities; may assist positioning and transitions
7 Is the positioning equipment safe and easy to handle?	Positioning in stander requires adult Then other children can handle safely and easily	Yes, may need outriggers to prevent tipping
8 Is the equipment individually selected and modified to match individual learner needs?	A supine stander with individualized adaptations was purchased for Ted	Team will borrow garden kneeling stool to try it
9 Is the equipment available in / easily transported to natural environments?	Stander available at home and school Difficult to transport to other environments	Garden kneeler is lightweight, easy to transport
Final position	**Standing using equipment to assist.**	**Kneeling using equipment to assist.**

Table 7.4 Jamal's weekly schedule with positioning information

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Before school 7:00-7:45	Regular bus to school Restroom •7:30-7:45 (position transfer)				
Homeroom 7:45-8:00	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM
Period 1 8:05-8:55	SPANISH CLASS (position: standing)	SPANISH CLASS (position: standing)	SPANISH CLASS (position: standing)	SPANISH CLASS (position: standing)	SPANISH CLASS (position: standing)
Period 2 9:00-9:50	COMMUNITY PREP •9:00-9:15 COMMUNITY WORK •9:15-12:00	COMMUNITY PREP •9:00-9:15 COMMUNITY MOBILITY TRAINING	COMMUNITY PREP •9:00-9:15 COMMUNITY WORK •9:15-12:00	COMMUNITY PREP •9:00-9:15 COMMUNITY MOBILITY TRAINING	COMMUNITY PREP •9:00-9:15 COMMUNITY WORK •9:15-12:00
Period 3 9:55-10:45	Restroom •10:15-10:30 (position transfer)	Restroom •10:15-10:30 (position transfer)	Restroom •10:15-10:30 (position transfer)	Restroom •10:15-10:30 (position transfer)	Restroom •10:15-10:30 (position transfer)
Period 4 10:50-11:40		CHOIR (position: sidelying)		CHOIR (position: sidelying)	
Period 5 11:45-12:35	LUNCH •12:20-12:50	COMMUNITY FAST FOOD RESTAURANT	LUNCH •12:20-12:50	LUNCH •11:45-12:15 Restroom •12:15-12:30 (position transfer)	LUNCH •12:20-12:50
Period 6 12:40-1:30	ERRANDS •12:50-1:15 Restroom •1:15-1:30 (position transfer)	Restroom •12:40-12:55 (position transfer) MEDIA CENTER •library •computers	ERRANDS •12:50-1:15 Restroom •1:15-1:30 (position transfer)	MEDIA CENTER •library •computer	ERRANDS •12:50-1:15 Restroom •1:15-1:30 (position transfer)
Period 7 1:35-2:25	HOME ECONOMICS (position: standing)	HORTICULTURE (position: standing)	HOME ECONOMICS (position: standing)	HORTICULTURE (position: standing)	HOME ECONOMICS (position: standing)
After school				After School Activity •swim team manager	

BEST COPY AVAILABLE

2.182

Although sidelying is not a "normal" position for school, the team found that Jamal appreciated the change and the position enabled him to "sing" in Choir. Because Jamal was prone to upper respiratory infections, the team was pleased that the position and activity improved his breathing, even if only temporarily. The Choir teacher was equally pleased that Jamal was able to participate. Once given an explanation, the other students were very accepting of and interested in how Jamal was positioned. Since transporting equipment through the school and changing Jamal's position was easier with extra people, the team recruited classmates for assistance. The occupational therapist and physical therapist established training activities to teach students to help lift and transfer Jamal safely. (See Inge and Snell [1985] for an example of a systematic instructional program that could be used in this way.) The Special Education teaching assistant who accompanied Jamal to Choir, Home Economics, and Horticulture was then able to ask for assistance from a student who had been taught to help lift Jamal. In addition to teaching students and staff a variety of lifting, transferring, and positioning strategies, the occupational and physical therapist devised checklists, diagrams, and/or photographs as reminders of how to use the strategies properly with various students. The reminders were attached to equipment or posted on walls unobtrusively in the areas where staff were likely to be repositioning students with physical disabilities.

Another way that students with physical disabilities might be prepared for instruction is by normalizing their tone (York & Wiemann, 1991). Most frequently, this means that a student with spasticity has his or her tone reduced by some type of slow, rhythmic movement. In isolated therapy models, therapists often have done this using special equipment such as bolsters or therapy balls. Both Kristen's team and Jamal's team found they could accomplish the same goal in a more integrated fashion. For example, one of Kristen's objectives was to rise to stand and lower to kneel by stepping up or down with one foot at a time. Without intervention, spasticity caused her to keep both knees together and push her weight over the inner side of her ankles to get on and off her feet. During the kindergarten play routine and other daily activities, Kristen frequently moved between kneeling and standing spontaneously, so the team needed an incidental teaching strategy to normalize her tone and facilitate reciprocal movement. The team agreed upon how they would prepare Kristen verbally for their physical intervention (e.g., "Kristen, let me help you stand up one foot at a time.") and how they would reinforce her (e.g., "That was great! That's a good way to stand up.") The physical therapist taught classroom staff to identify when Kristen was getting ready to change positions, separate Kristen's knees to facilitate a normal standing or kneeling position, reinforce the position by pressing down through her hips, hold her knees apart and shift weight as she changed position, and then reinforce the new position by pressing down through her hips (see Figure 7.2). In addition to stick figure diagrams, the physical therapist provided a data sheet to remind staff of the procedures, to record Kristen's performance, and to monitor the number of opportunities provided for Kristen to learn this new pattern (Table 7.5). When therapists develop useful diagrams, they may wish to file them for use with other students and staff. Commercial packages of diagrams to guide positioning and handling are also available (e.g., Jaeger, 1987; Ossman & Campbell, 1990).

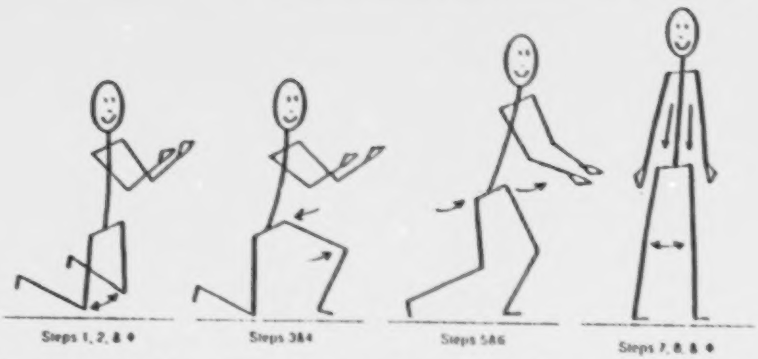


Figure 7.2. Stick figure diagrams to remind staff how to prompt Kristen to rise to stand. Steps 1 through 8 and * are detailed in Table 7.5.

Jamal was expected to improve use of his arms and hands for tasks such as turning on the tape recorder in Spanish class, stamping mail at Metro Insurance Agency, and driving his wheelchair. After working on these tasks for a few days, team members reported back to the occupational therapist that Jamal continued to be "stiff" and seemed to resist participation. In response, the occupational therapist established a "warm-up" procedure of tone normalization, stretching, and reactive movement to prepare Jamal to use his arms and hands (Table 7.6). To evaluate its effectiveness, the procedure included a system for data collection. As with Kristen, the warm-up was done as an integral part of the activities in which Jamal needed to use his hands. The occupational therapist worked with all staff members to ensure that they could use the procedure effectively. In the process, they reviewed the written procedure, clarified terminology, and selected key words that would cue staff to remember the most relevant aspects of the procedure.

Another way students might be prepared for an activity is through communication about the day's schedule, upcoming transitions, choices available in an activity, and changes in the routine. Kristen's team determined that she was likely to become upset when she was confused about the sequence of activities, such as on days the class went to special activities. To help communicate these changes to Kristen, she was given a sweatband to wear to gym, bells to wear to music, or a smock to wear to art just prior to leaving for the activity. The team planned to incorporate these cues into a picture schedule when Kristen developed an association between the objects and corresponding events. Kristen's classmate, Brad (who was not identified as handicapped), often became upset during the transition from playtime to opening group. The team discovered that he did

BEST COPY AVAILABLE

Table 7.5 Performance scoring data sheet for Kristen

Student: Kristen F **Program:** Kneel to stand
Initial Instruction: Kristie, go one foot at a time.
Prompts and Scoring:
3 = spontaneous
2 = touch/tap body part
1 = grasp body part, passive move
0 = grasp body part, resisted movement
Time Delay between Prompts:
23 seconds

Movement sequence	Prompt at:	9/16	9/23	9/30	10/7	10/14	10/21	10/28
1 Hold furniture with two hands	No physical prompt	3	3	3	3	3	3	3
2. Kneel - knees apart, hips straight	Inner side knees, top front and lower back of pelvis	1	1	1	2	1	2	2
* Reinforce position by pressing down on hips for 5 seconds.								
3. Shift weight over one knee.	Opposite hip	1	1	2	2	2	2	2
4 Lift opposite knee. Place feet in front; keep knee out to side.	Back and inner side leg, just above knee	0	0	0	0	1	1	2
5 Shift weight over forward leg	Both sides of pelvis	1	1	2	2	2	3	2
6. Straighten front hip and knee keeping weight forward.	Top front and lower back of pelvis	1	2	2	3	3	2	3
7. Slide other foot forward and place.	Heel	2	2	2	2	3	3	3
8 Stand - knees apart, hips and knees straight	Front and inner sides of knees, back of hips	0	0	1	2	1	2	2
* Reinforce position by pressing down on hips for 5 seconds.								
POSSIBLE SCORE = 24	TOTAL SCORE =	9	10	13	16	16	18	19
# TIMES TAUGHT TODAY		|||| 4	卌 | 6	卌 ||| 8	卌 ||| 8	卌 ||| 8	卌 || 7	卌 ||| 8

Table 7.6 Generic preparation procedure for arm use for Jamal

Student: Jamal
Date: 10 16 92
Contexts: Drive wheelchair, stamp mail, clothing on/off, personal care activities, turn on/off tape recorder, and other hand/arm use

Positioning

Jamal Standing or sitting as specified for activity. Right elbow and forearm supported on tray.

Instructor Standing facing Jamal on his right side. Left hand cupped firmly around top outside part of Jamal's right shoulder. Right hand cupped firmly around underside of elbow and upper forearm.

Preparation

1. While maintaining a firm hold around Jamal's shoulder, gently shake the arm from the elbow until you feel a release of the muscle tension (usually about 2 to 5 seconds).
2. As the tension releases move the shoulder into a rounded forward position, the elbow into a straighter position, and the forearm into a position so the palm of the hand faces downward.
3. Hold the arm in this more forward and elongated position for 2 to 5 seconds. Then allow the arm to relax a little, but maintain a firm hold at the shoulder and elbow.
4. Repeat steps 2-3 until the arm remains in the forward and elongated position. Maintain control at the shoulder only (approximately 5 to 10 repetitions).
5. With your right hand, hold firmly under Jamal's wrist and hand. Shake the hand/wrist gently. As tension releases, continue to move wrist and fingers into a slightly extended position.

Active Movement

1. **Coactive practice** Maintain firm hold around right shoulder. Initiate movement of his elbow into extension. Pause slightly (but maintain hold) to allow Jamal the opportunity to continue active extension himself. Guide completion of movement as necessary to perform the designated task.
2. Repeat 3 times.
3. **Active movement (with maintained control at shoulder)** Repeat practice sequence but remove control at elbow after Jamal starts to extend his elbow.
4. **Error correction** Reinstate control from elbow and assist to complete facilitated movement pattern.

Data

1. **Preparation** Number of repetitions required for relaxed and elongated position to be achieved.
2. **Coactive Practice** Score (+) for the practice opportunities in which Jamal completes active elbow extension while instructor maintains hold.
3. **Active movement** Score (+) for the opportunities in which Jamal completes active elbow extension without the instructor maintaining control at elbow.
4. **Function/application** Score (+) for the opportunities that active extension results in sufficient movement to perform the designated task.

BEST COPY AVAILABLE

2.184

much better when he could anticipate the end of playtime by being told that clean-up would start in 1 minute, at which time a kitchen timer would go off. The team did not think a formal program was needed for either procedure; they simply implemented practices that seemed to assist Kristen and Brad. Both procedures enabled the students to anticipate upcoming events and participate actively rather than fight to control confusing events. In Brad's case, the team acted as a classroom support team, preventing the type of crisis that often results in student referral to special education (Hayek, 1987).

What System and Types of Cues and Prompts Will Be Used To Elicit the Desired Performance?

There are extensive combinations of verbal, visual, and physical prompts that can be individualized to meet the learning needs of each student. Although verbal prompts are often considered the least intrusive and physical prompts the most intrusive, the number, type, and sequence of prompts that are effective depends upon the task to be performed and the type of prompts to which the student responds (see Effgen, 1951; Powell et al., 1991). For example, the movement procedures outlined for Kristen and Jamal in Tables 7.5 and 7.6 rely on a range of physical prompts to elicit the desired performance. Although Jamal understands verbal directions and Kristen responds well to gestures, verbal and gestural prompts were not effective to elicit the desired movements, nor would they be easy to fade from tasks of this type. One of Kristen's communication programs (Table 7.7) used a sequence of a gesture, then an indirect verbal prompt and a gesture, and finally physical guidance. One of Jamal's communication programs (Table 7.8) used an indirect verbal prompt ("Do you want to tell me something?") with a direct but complex verbal prompt ("When I touch what you want, look at my eyes."), followed by a direct verbal prompt ("Look at your board."). One of Jamal's student coworkers at Metro Insurance Agency, who had depended heavily on frequent verbal directions, was being taught to use a pictorial checklist as the least intrusive prompt to perform his job.

When using a sequence of increasing assistance, a good rule of thumb is to select two or three prompts for the prompting sequence. The first prompt would be as close as possible to a natural cue; the student may not respond to this prompt at the start of instruction but is expected to learn. The second prompt would provide greater assistance but would not consistently elicit the desired performance from the student at the start of instruction. The final prompt in the sequence would increase assistance but provide the minimum amount needed to ensure the desired performance. Using more than three prompts would make the student wait too long before experiencing success. Another component of a prompting sequence is a time delay, a brief waiting period before giving the next prompt (see Snell, 1987). A time delay may be as little as 1 second for a student who moves quickly and makes frequent errors. A student with a severe physical disability may need as long as 10 seconds to initiate a motor response. A time delay of between 2 and 5 seconds is appropriate for most students and tasks, but individualized decisions are needed even within this range. During initial learning, delays longer than 10 seconds are rarely effective since they encourage distractions. When students have learned skills but do not use them spontaneously, delays of 15 seconds have been used to elicit responses (Halle, Marshall, & Spradlin, 1979).

Table 7.7 Communication program for Kristen

Student: Kristen **Date** 10 6 92

Program: Requests

Instructional Procedures

Setting, Grouping, Positioning	• Adults and children should model use of pictures for communication with Kristen throughout daily routines. Classmates should be encouraged to talk about the pictures, touch them, match them to real objects, and so forth
Equipment/Materials	• Pictures placed around the classroom where corresponding activities occur
Initial Instruction and Prompt	• Teacher announces the activity to all students (natural cue) • When Kristen approaches the activity associated with a picture, an adult directs her attention to the picture by pointing at it
Correct Response	• Kristen touches the picture
Time Delay and Correction	• Wait 5 seconds. If no response say, "Kristen, do you want ________?" and point to the picture • Wait 5 seconds. If still no response, manually guide her hand to touch the picture
Reinforcement	• Natural consequence obtain object/activity • Social: Touch the picture while saying, "Great, you touched ________, so here's ________."
Frequency to Teach	• Daily, at least 10 opportunities throughout the day
Frequency of Data	• Tuesdays and Fridays
Type of Data	• Record type of performance for each opportunity provided -- (N)Natural cue only, (P)Point, (V)Verbal prompt, (G)Guide
Criterion for Change	• Success of plan -- 10 times per day with pointing cue only for 4 out of 5 days • Failure of plan -- physical guidance needed on more than 50% of trials for 4 out of 5 days

Projected completion date: 11 23 92
Actual completion date:
Comments:

Although it is best to individualize the prompting sequence to both the student and the objective, some students benefit from having a prompting sequence that can be used until specific instructional programs are developed. For example, Kristen's classmate Rex did not follow directions when expectations were not clear and consistent. After the third day of school, the team agreed to use the following prompting sequence with Rex:

Give a general verbal instruction to the group (e.g., "It's time to sit in the story circle on the rug.")

Wait 5 seconds

BEST COPY AVAILABLE

Table 7.8 Communication program for Jamal

Student: Jamal W **Date:** 10 9 92

Program: Scanning

The emphasis of this objective is on learning to scan rather than initiation of communication, which will be addressed at a later date

Instructional Procedures

Setting, Grouping, Positioning	• Spanish I class in supine stander or w/c, grouping varies with activity • Daily after the opening exercise (request to move) • Daily after being repositioned for the joke of the day (request tape recorder) • Daily immediately after the joke of the day (request to put tape in bag) • Daily before the team activity (request to move)
Equipment/Materials	• Hinged Plexiglas display, that attaches to his stander or wheelchair, 4 clear plastic pockets attached to the display, object/symbol (e.g., a scrap of fabric from his bag and a picture of his bag) to put on the display
Instruction and Prompt	• Classmate stands near Jamal and announces the next activity • "Jamal, do you want to tell me something on your board? When I touch what you want, look at my eyes." (Classmate gestures toward his/her eyes.) • Classmate points to the 4 plastic pockets one at a time (3 empty) manually, pausing for 3 seconds at each pocket
Correct Response	• Jamal looks at the classmate's eyes when he/she touches the object/symbol
Time Delay and Correction	• If Jamal looks up at the wrong time or doesn't look within three seconds say, "Let's try again, look at your board." Repeat scanning and say, "Here's (object/symbol)," when the object/symbol is reached • If Jamal still does not succeed, repeat the above cues along with a slight physical prompt to his chin to tilt his eyes to yours
Reinforcement	• Natural consequences -- Classmate touches the object/symbol again, reiterates Jamal's message, and responds by touching the object/symbol and saying, "Oh you want some help with the tape recorder," and then assisting Jamal with the activity
Frequency to Teach	• 4 opportunities daily
Frequency of Data	• Tuesdays and Thursdays
Type of Data	• Record type of performance for each opportunity provided -- (+) scanned correctly, (0) error or no response • Note number correct per day
Criterion for Change	• Success of plan -- 4 out of 4 correct for 5 consecutive days • Failure of plan -- ≤ 2 out of 4 correct for 5 consecutive days

Projected completion date: 11 9 92
Actual completion date:
Comments:

BEST COPY AVAILABLE

Face Rex at eye level; give a specific verbal direction (e.g., "Rex, please go sit on the rug now.")
Wait 5 seconds
Tell Rex you will help him; gently take his hands/shoulders and physically guide him if necessary

The team's intent was not to force compliance but to make sure their expectations were expressed clearly and consistently, enabling Rex to chose participation over resistance and confrontation. After 1 week Rex was responding to specific verbal directions. By the end of September, he was following group directions as consistently as other children in the class.

For his community work experience, Jamal needed varied types and levels of assistance to perform the steps in his job of stamping the mail. Rather than try to determine one prompting sequence for the entire task, the team determined the preferred prompt for each step in the task analysis and noted them on the data sheet (see Table 7.9). Periodically the team, including the teaching assistant who went to the worksite, reviewed Jamal's performance and updated the preferred prompt. Because the team was also concerned with Jamal's rate of production, the data sheet included space for this information.

There are countless formats for recording information about instructional procedures to ensure that all team members understand and use the same method to achieve an objective. In addition to the prompting sequence, procedures should include the type and schedule of reinforcement, the frequency with which to teach the skill, the frequency with which to collect data, the type of data to be collected, and criteria to revise the instructional procedure.

What Adaptations Will Be Used To Enhance Performance?

Adaptations can take many forms (Baumgart et al., 1982; York & Rainforth, 1991). The form most familiar to therapists involves modifying materials or providing special equipment. Jamal's team had an assistive device built to enable him to stamp mail at Metro Insurance Agency (Figure 7.3). A pictorial checklist enabled Jamal's coworker to perform his job independently. Jamal's and Kristen's augmentative communication systems were both adaptations. Another form of adaptation involves modification of task sequences so steps are skipped or completed with assistance. Jamal was expected to drive his power wheelchair in uncongested hallways, and he was given physical assistance as both an adaptation and a teaching strategy. In congested areas such as classrooms, someone else pushed Jamal's chair. Personal assistance can be given by family members, staff, or, in integrated settings, by peers without disabilities (Thousand & Villa, 1990). Jamal's coworkers at Metro Insurance Agency and his classmates were encouraged to provide needed assistance. They were also taught *when*, *how*, and *how much* to assist Jamal so he both completed the immediate task and improved his performance over time. Kristen had an IEP objective to carry objects with both hands. During playtime, however, the team opted both to teach this skill and to encourage her to hand materials to a peer who would carry them for her. Kristen's friends were taught to help make decisions about which situations were better for each approach. Table 7.10 provides other examples of adaptations that might be considered for a child with physical disabilities during play time in kindergarten.

Table 7.3 Community work program for Jamal

Student: Jamal Williams
Date: 10-9-91
Position: Sitting in wheelchair at work station
Materials: Date stamp, adaptation, mail, pictures of materials in plastic pockets

Procedure	Jamal's response	Date	Date	Date	Date
A. SCAN PICTURES TO OBTAIN MATERIALS					
1. Say, "Do you want to tell me something on your board? When I touch what you want, look at my eyes."	Scans for date stamp. Scans for adaptation.				
2. Point to each of 4 pockets (3 empty), pausing for 3 seconds at each.	Scans for stack of mail.				
B. STAMP MAIL					
1. **Preparation:** Refer to generic preparation procedure for arm use. T maintains shoulder and elbow control.	Relaxes arm in elongated position.	# repetitions required ___	# repetitions required ___	# repetitions required ___	# repetitions required ___
2. **Coactive practice:** T initiates movement, maintains shoulder and elbow control.	Completes active movement into elbow extension.				
3. **Active movement:** T maintains shoulder control only.	Initiates and completes active movement into extension.				
4. **Decrease stamping adaptation:** T places hand on adaptation, maintains shoulder control only.	Initiates and completes depression of adaptation.				
5. **Slide mail off adaptation:** T places hands on top of pieces of mail, initiates lateral movement, maintains shoulder control only.	Completes lateral movement to slide mail off pile.				
Repeat steps 4-5 until the pile of mail is stamped. If needed, repeat steps 1-3.					

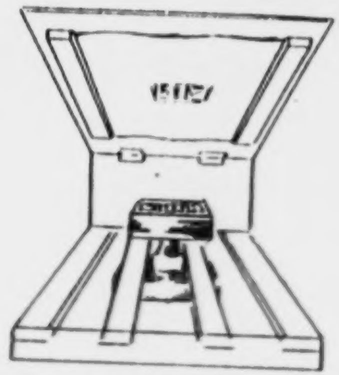


Figure 7.3. Stamping adaptation (developed by Kathy Zanella Albright). (From York, J., & Rainforth, B. [1991]. Developing individualized adaptations. In F.P. Orelove & D.J. Sobsey, *Educating children with multiple disabilities: A transdisciplinary approach* [2nd ed.] [p. 281]. Baltimore: Paul H. Brookes Publishing Co.; reprinted by permission.)

Although certain types of adaptations may be associated with particular disciplines, it is the team that decides whether an adaptation is warranted. York and Rainforth (1991) discussed the following considerations that can assist a team with decisions about adaptations:

Will the adaptation increase active participation in the activity?
Will it allow the student to participate in an activity that is preferred or valued by the student, friends, or family members?
Will it continue to be useful and appropriate as the student grows older and starts using other environments?
Will it take less time to teach the student to use the adaptation than to teach the skill directly?
Will the team have access to the technical expertise to design, construct, adjust, and repair the adaptation?
Will use of the adaptation maintain or enhance related motor and communication skills?

An adaptation is a strategy, like a prompt, that is one component of an instructional procedure. Therefore, when an adaptation is warranted, team members will provide instruction, assess performance, and conduct responsive program modifications (including modifications of the adaptation), just as they do with other instructional procedures. Furthermore, like other "artificial" strategies, adaptations are faded as soon as it is possible and efficient to do so.

How Will Performance Be Assessed?

Student performance on IEP objectives and the effectiveness of instructional procedures must be assessed regularly through ongoing data collection. During skill acquisition, data are usually collected at least once a week by the person who provides instruction. Team members other than therapists usually provide instruction involving motor and communication skills and would collect data on those programs. One way that therapists can monitor student performance is to review the data that other team members have collected. During their scheduled time with a class, therapists might also collect data as a reliability check. Thus regular data collection promotes communication about student performance and program effectiveness.

The data collected for an objective should provide relevant information about student performance. Duration, latency, frequency, distance, rate, and number correct all provide relevant information about some types of performance, but not all types. Several instructional procedures presented in this chapter provide information about the type of prompts needed to perform tasks successfully. When a score is assigned to each prompt, this type of

2.187

Table 7.10 Possible adaptations for a kindergarten student with physical disabilities during free play

Nondisabled Peer Activities	Typical Methods and Acceptable Alternatives		
	Transitions / Mobility	Positions	Participation
Looking at / reading books	TYP Walk to shelves ALT Scoot, crawl, roll Not much space but small equipment OK	TYP Sit on carpeted steps, sit or lie on floor Children are physically very close, usually touching ALT Avoid use of equipment that isolates	TYP Manipulate books with hands, read/comment out loud ALT Most would be OK Book holders, sticks to turn pages, taped books
Talking with friends	TYP Walk, run to carpeted steps, room corners Small groups may change location to exclude peers or increase privacy ALT Floor method OK, small equipment OK	TYP Same as above Positions may change to exclude peers or be more private ALT Avoid use of equipment that isolates, may need to work in position changes	TYP Talk, whisper, giggle, point, watch others, interrupt, leave if not included ALT Show pictures, activate prerecorded taped messages
Showing toys to friends	TYP Walk, skip to cubbies then return to play area ALT Floor method OK, scooter board difficult on surface change, wheelchair OK, friend could get toy	TYP Stand or sit on floor or steps, usually very close to each other and touching ALT Most upright positions OK	TYP Hold, show, exchange, manipulate items ALT Point to items, have friend help show item
Climbing on carpeted stairs / seats	TYP Walk, skip to steps ALT Any method OK, small equipment OK	TYP Stand to step, sit to scoot up/down ALT Could be to roll down deep steps	TYP Stepping in standing position, scooting seated ALT Rolling down deep steps

TYP, typical methods displayed by nondisabled peers; ALT, alternatives that may be acceptable

data collection is termed "performance scoring." The advantage of performance scoring over simply recording the type of prompt is that performance on the complete task can be summarized with a numerical score. The total score does not provide information on specific aspects of performance; rather, it shows a trend in overall performance. The data sheet in Table 7.5 presents an example of performance scoring. Once data are collected and summarized, graphing the data is recommended for accurate analysis and responsive program modification.

Deciding when to modify an instructional procedure is expedited by establishing two types of performance criteria. The "success criterion" indicates that the student has achieved an intermediate objective and a more challenging procedure or

criterion should be established. The "failure criterion" indicates that the instructional procedure has not been effective and must be revised. (*Note:* Since the special education team is responsible for designing effective instruction, it is the procedure that has failed, not the student.) These criterion lines are marked on the graph so it is easy to compare desired and actual performance. To be used for responsive decision making, data must be collected, graphed, and compared with criteria regularly (i.e., at least weekly). If data are collected only once a week, the frequency of data collection can be increased temporarily as a student approaches the criterion established by the team. The graph of Jamal's performance driving his power wheelchair illustrates that the first instructional procedure was not effective, but that he made steady progress after the team modified their approach (Figure 7.4).

A simple strategy for timely communication about student performance is to keep a supply of short fill-in-the-blank notes (see Table 7.11). When the teaching assistant who worked with Jamal on driving his wheelchair noticed that Jamal was not making satisfactory progress, he completed a Program Change note and put it in the occupational therapist's mailbox. When the therapist received the note, she made it a priority to observe this program during her next regularly scheduled time with the class. Based on observation and discussion with the teaching assistant, the therapist tried the "warm-up" procedure discussed earlier in this chapter, put the procedure in writing, and circulated the completed Program Change note to relevant team members. When Jamal reaches the success criterion, the teaching assistant will send another note to the therapist so the program can be revised quickly.

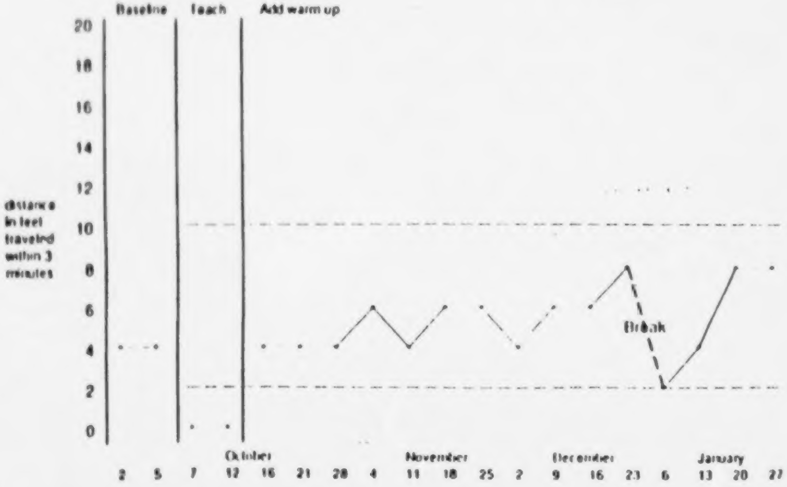


Figure 7.4. Graph of Jamal's performance driving his power wheelchair

BEST COPY AVAILABLE

2.188

Table 7.11 Program change notes regarding Jamal

PROGRAM CHANGE NEEDED	**PROGRAM CHANGE MADE**
Date 10-12-92	Date:
To Lisa W. (OT)	To
From Jake S. (Teaching Assistant)	From
Student Jamal W.	Student
Program Driving wheelchair	Program
Reason change is needed ☐ criterion met ☒ no progress ☐ other (specify)	Reason change was met ☐ criterion met ☐ no progress ☐ other (specify)
Comments/suggestions He's not doing as well as during baseline. He seems interested but he gets real stiff and seems to resist my prompts.	Comments/suggestions

PROGRAM CHANGE NEEDED	**PROGRAM CHANGE MADE**
Date 10-12-92	Date 10-16-92
To Lisa W. (OT)	To Jamal W.'s team
From Jake S. (Teaching Assistant)	From Lisa W.
Student Jamal W.	Student Jamal W.
Program Driving wheelchair	Program Stamping mail, driving wheelchair, turning on cassette recorder
Reason change is needed ☐ criterion met ☒ no progress ☐ other (specify)	Reason change was met ☐ criterion met ☒ no progress ☐ other (specify)
Comments/suggestions He's not doing as well as during baseline. He seems interested but he gets real stiff and seems to resist my prompts.	Comments/suggestions Jamal does much better when relaxed and stretched before asked to use his hands. Jill will work with each of you to set warm-up procedure (attached)

WORKING WITH SYSTEMATIC INSTRUCTIONAL PROCEDURES

Establishing instructional procedures, collecting and analyzing data, and making responsive program modifications is an ongoing process. Teams should not expect to identify and write effective instructional procedures for the entire year for all students' priorities during the first few weeks of school. This is a long-term endeavor, much like the assessment process discussed in Chapter 5. For the same reason, procedures that have been effective are not discarded at the end of the school year, but are continued as long as appropriate to promote achievement of priority objectives.

Many therapists will find it challenging to establish systematic instructional procedures, since few therapists are formally trained for this task. One of the authors of this book required 3 months of instruction and support from a special education teacher on her team to write her first instructional program. Special educators who are knowledgeable about developing systematic instructional procedures and collecting and analyzing data are valuable resources to their teams. When team members pool their knowledge about curriculum, assessment, systematic instruction, and the specific strategies associated with each discipline, students with severe disabilities have greater opportunities for programs that are comprehensive, consistent, and effective.

REFERENCES

Albano, M.L. (1983). *Transdisciplinary teaming in special education: A case study.* Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.

Bailey, D.B., & Wolery, M. (1989). *Assessing infants and preschoolers with handicaps.* Columbus, OH: Charles E. Merrill.

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). The principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of The Association for Persons with Severe Handicaps, 7*(2), 17–27.

Browder, D.M. (1991). *Assessment of individuals with severe disabilities: An applied behavior approach to life skills assessment* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Ellgen, S.K. (1991). Systematic delivery and recording of intervention assistance. *Pediatric Physical Therapy, 3*(2), 63–68.

Ford, A., & Mirenda, P. (1984). Community instruction: A natural cues and corrections decision model. *Journal of The Association for Persons with Severe Handicaps, 9*(2), 79–88.

Ford, A., Schnorr, R., Meyer, L., Davern, L., Black, J., & Dempsey, P. (Eds.) (1989). *The Syracuse community referenced curriculum guide for students with moderate and severe disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Goodlad, J.I. (1984). *A place called school: Prospects for the future.* New York: McGraw-Hill Book Company.

Guess, D., & Helmstetter, E. (1986). Skill cluster instruction and the individualized curriculum sequencing model. In R. Horner, L. Meyer, & H.D. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 221–248). Baltimore: Paul H. Brookes Publishing Co.

Halle, J., Marshall, A., & Spradlin, J. (1979). Time delay: A technique to increase language use and facilitate generalization in retarded children. *Journal of Applied Behavior Analysis, 12*(3), 431–439.

Hayek, R.A. (1987). The teacher assistance team: A pre-referral support team. *Focus on Exceptional Children, 20*(1), 1–7.

Inge, K.J., & Snell, M.E. (1985). Teaching positioning and handling techniques to public school personnel through inservice training. *Journal of The Association for Persons with Severe Handicaps, 10*(2), 105–110.

Jarget, L. (1987). *Home program instruction*

BEST COPY AVAILABLE

sheets for infants and young children. Tucson, AZ: Therapy Skill Builders.

Johnson, D.W., & Johnson, R.T. (1987). *Learning together and alone: Cooperative, competitive, and individualistic learning.* Englewood Cliffs, NJ: Prentice Hall.

Kauffman, J.M. (Ed.). (1981). Are all children educable? *Analysis and Intervention in Developmental Disabilities, 1*(1), 1–108.

McWilliam, R.A., Trivette, C.M., & Dunst, C.J. (1985). Behavior engagement as a measure of the efficacy of early intervention. *Analysis and Intervention in Developmental Disabilities, 5*(1), 59–71.

Meyer, L.H., & Evans, I.M. (1989). *Nonaversive intervention for behavior problems: A manual for home and community.* Baltimore: Paul H. Brookes Publishing Co.

Mulligan, M., Lacy, L., & Guess, D. (1982). Effects of massed, distributed, and spaced trial sequencing on severely handicapped students' performance. *Journal of The Association for the Severely Handicapped, 7*(2), 48–61.

Ossman, N.H., & Campbell, M. (1990). *Adult positions, transitions, and transfers: Reproducible instruction cards for caregivers.* Tucson, AZ: Therapy Skill Builders.

Ottenbacher, K.J. (1986). *Evaluating clinical change: Strategies for occupational and physical therapists.* Baltimore: Williams & Wilkins.

Powell, T.H., Pancsofar, E.L., Steere, D.E., Butterworth, J., Itzkowitz, J.S., & Rainforth, B. (1991). *Supported employment: Providing integrated employment opportunities for persons with disabilities.* New York: Longman.

Rainforth, B., & York, J. (1991). Handling and positioning. In F.P. Orelove & D. Sobsey, *Educating children with multiple disabilities: A transdisciplinary approach* (2nd ed.) (pp. 79–117). Baltimore: Paul H. Brookes Publishing Co.

Reichle, J., York, J., & Sigafoos, J. (1991). *Implementing augmentative and alternative communication: Strategies for learners with severe disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Snell, M. (1987). *Systematic instruction of persons with severe handicaps* (3rd ed.). Columbus, OH: Charles E. Merrill.

Taylor, S. (1988). Caught in the continuum: A critical analysis of the principle of the least restrictive environment. *Journal of The Association for Persons with Severe Handicaps, 13*(1), 41–53.

Thousand, J., & Villa, R. (1990). Strategies for educating learners with severe disabilities within their local home schools and communities. *Focus on Exceptional Children, 23*(3), 1–24.

Wells, N. (1983). Eighteenth Mary McMillan lecture: The principle of choice. *Physical Therapy, 63*(11), 1802–1808.

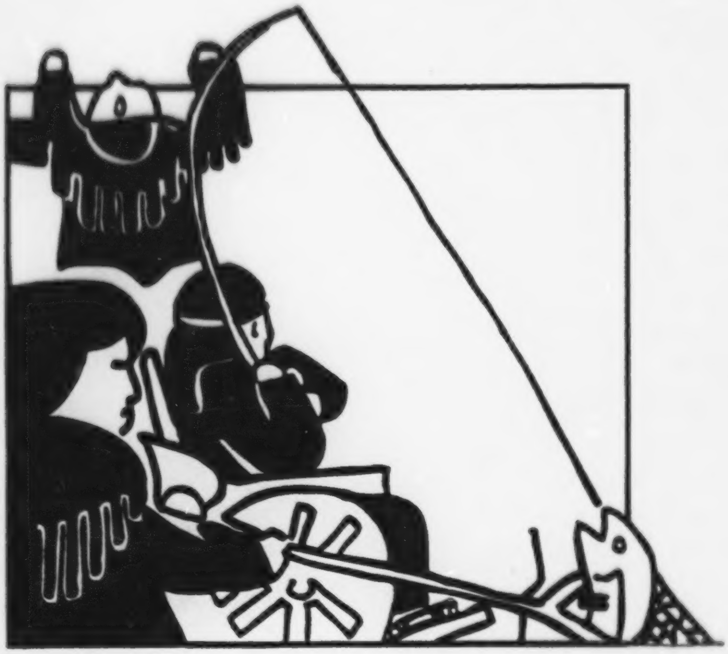
Yonemura, M.V. (1986). *A teacher at work: Professional development and the early childhood educator.* New York: Teachers College Press.

York, J., & Rainforth, B. (1991). Developing instructional adaptations. In F.P. Orelove & D. Sobsey, *Educating children with multiple disabilities: A transdisciplinary approach* (2nd ed.) (pp. 259–295). Baltimore: Paul H. Brookes Publishing Co.

York, J., & Wiemann, G. (1991). Accommodating severe physical disabilities. In J. Reichle, J. York, & J. Sigafoos, *Implementing augmentative and alternative communication: Strategies for learners with severe disabilities* (pp. 239–256). Baltimore: Paul H. Brookes Publishing Co.

Section 8

CURRICULUM MODIFICATION: Activity Based Instruction and the Activity Skills Matrix



Module Developers:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 8

CURRICULUM MODIFICATION: ACTIVITY BASED INSTRUCTION AND THE ACTIVITY SKILLS MATRIX

PURPOSE

Activity based instruction provides a format for infusing students individual goals and objectives within the context of the regular education curriculum. Participants will be able to identify the benefits of an activity based approach as well as formulate an activity skills matrix for one student.

LEARNER OUTCOMES

Participants will develop one activity skills matrix for a student who experiences a disability.

CONTENT FOCUS

BACKGROUND:

The REGULAR EDUCATION FULL INCLUSION PROJECT supports the use of activity-based instruction for all students who experience severe disabilities from preschool to high school. In addition, we recognize the need for students who experience severe disabilities to practice skills and acquire skills that will have an immediate impact on their daily lives, but "do so in such a way that they are able to build a solid foundation of competence that will serve them in current and future environments." (Ferguson, Jeanchild, & Todd, 1991).

REFIP supports the teaching of skills within the context of naturally occurring activities. The emphasis should be on the participation in the activity and the outcome of the activity not on the isolated demonstration of any particular skill. Students who experience disabilities do not learn to transfer and generalize skills that are taught and mastered in isolated resource rooms, segregated classrooms, or therapy sessions/settings. We have learned over the last fifteen years that students who experience severe disabilities **NEED** to receive instruction in the natural setting, in the context of activities and with natural supports and friends. Although there are obvious skills that are needed to perform activities, we contend that students who experience a severe disability need to receive instruction on these skills or abilities within the context of a particular relevant activity.

A WORD ON ACTIVITIES

There are several particular features of an activity based approach. There are three main types of activities.

1. **Routine**.

   When one analyzes a particular child's day, there are specific routines that occur. For instance, brushing teeth, eating breakfast, walking to school, riding a snow machine home, participating in an outdoor activity.

2. **Planned**.

   There are certain times when a teacher or parent **plan** a specific activity. In the preschool or Head Start classroom, the teacher may plan an art activity centered around making a spirit mask. A fourth grade teacher may plan a writing activity that involves students making a book about whaling in their village. A secondary science teacher may plan an outdoor activity to analyze the snow composition and features.

3. **Spontaneous**.

   Often during the course of a day good teachers capitalize on the spontaneous events that occur. These teachers use these spontaneous events as a means of instruction. For instance, it might be that on a particular crisp fall morning one student arrives at school and commented on the flock of geese resting on the knoll outside the school. On this particular day this teacher capitalizes on this spontaneous event by weaving it into an art, writing, and spelling activity.

   Some combination of the three types of activities generally makes for a diverse and rich instructional context or curriculum. The following illustrates some of our thoughts on this combination.

How do you find the right mix?

There is no **one** right combination for all classrooms and all children. There are a few concepts to consider.

* culture and context of your village, or town;
* students' interest and learning styles;
* reasonable distribution of the 3 types; and
* supports available to carry out the activity.

In general, we suggest that you have a mixture of the three types. The routine activities are obvious. Even with planned activities, remember you can be creative. You need to be vigilant and open to capitalize on spontaneous activities. Knowing your curriculum and being familiar with the student who experiences a disability's particular objectives will help insure that utilization of spontaneous activities will be meaningful for the student who experiences a disability. It is also suggested that you welcome and celebrate the culture, beliefs, and traditions of the village or city in with you teach.

There are different levels of activities.

Conducting an ecological assessment, as you did in section seven, will identify the activities within a given environment. A second way to identify activities is to analyze a particular curriculum area or subject content. For instance, during science class the 7th grade teacher has identified objectives and activities for a particular week. She can then look at those activities and begin to identify where and how the student who experiences a disability can participate and practice particular objectives or abilities.

ACTIVITY SKILLS MATRIX

An activity skills matrix is a **format and planning tool** that identifies (a) the specific student's objectives, (b) the regular education routine activities, and (c) the both the way that child will participate in the regular education classroom and the specific ways in which educational objectives are embedded within the regular education curriculum. To begin this section we will introduce three concepts.

Embedding objectives.

In ecological assessment and activity based instruction particular skills or objectives are embedded within the context of an activity. Embedding skills or objectives into an activity refers to finding the most appropriate, least intrusive and natural "place" within the activity to "capitalize" on the specific skill or objective.

For instance, a preschool child who experiences a severe disability may have an objective to reach for an object. If a teacher sought to embed that objective within the activity of making a spirit mask during art class, she may plan for particular times during that activity were the child with the disability would naturally need to reach for an item.

Natural supports or instruction.

The teacher will need to consider how the objective will be embedded. Will there be natural times during the sequence of a particular activity at which time the particular objective or skill will be required. For instance, during science class the dissecting kits will need to be taken out of the cupboards and available on the science tables. The student who needs opportunities to practice the skill of carrying objects can be responsible for going to the cupboard and locating the science kits, picking them up and carrying them to his lab partners table. This is a logically occurring place to embed the objective of carrying objects.

A teacher may plan to support the participation of the child with a disability in a particular curricular activity by having a peer help facilitate the involvement or participation. For instance, during reading groups in a second grade class a peer may support a child with a disabilities practicing specific reading words. Conversely, the student with a disability may be able to practice the skill of maintaining a grasp on objects by holding the reading list words for her group.

Identification of time and persons involved.

The activity skills matrix also serves as a heuristic that illustrates the specific time, location and persons involved in a particular activity.

STOP AND COMPLETE THE READINGS FOR THIS SECTION

HANDOUT 8.1

STEPS TO COMPLETING AN ACTIVITY SKILLS MATRIX

1. **ON THE HORIZONTAL AXIS**
    a. list all the student's individual educational program objectives.
    b. Identify other curricular needs identified by the team

2. **ON THE VERTICAL AXIS**
    a. List all the curricular areas or activities that occur in the regular education classroom.
    b. Develop a key or system for indicating how these objectives will be facilitated and integrated into the regular education curriculum. Rainforth, York and MacDonald (1992, p. 184) use (X) to signify that instruction needs to be provided; (I) indicates that this skill or objective could be integrated as incidents arise; and (G) indicates this objective should be integrated as a generalization opportunity.

FOOD FOR THOUGHT

An activity is a series of behaviors that has a clear beginning, middle, and end, and that results in a valued and functional outcome

(Ferguson & Jeanchild, 1991).

READINGS

Orelove, F. & Sobsey, D. (1991). Curriculum and instruction. In F. Orelove & D. Sobsey (Eds), Educating children with multiple disabilities: A transdisciplinary approach. (p. 231-258). Baltimore: Paul H. Brookes.

Rainforth, B. York, J., & MacDonald, C. (1992). Collaborative instructional design. In B. Rainforth, J. York, & C. MacDonald, (Ed). Collaborative teams for students with severe disabilities. (p. 179-202). Baltimore: Paul H. Brookes.

SECTION ACTIVITY OR ASSIGNMENT

Activity:

Review your classroom schedule.

What activities are routine?

What activities are planned?

What spontaneous activities have you capitalized on in the last week.

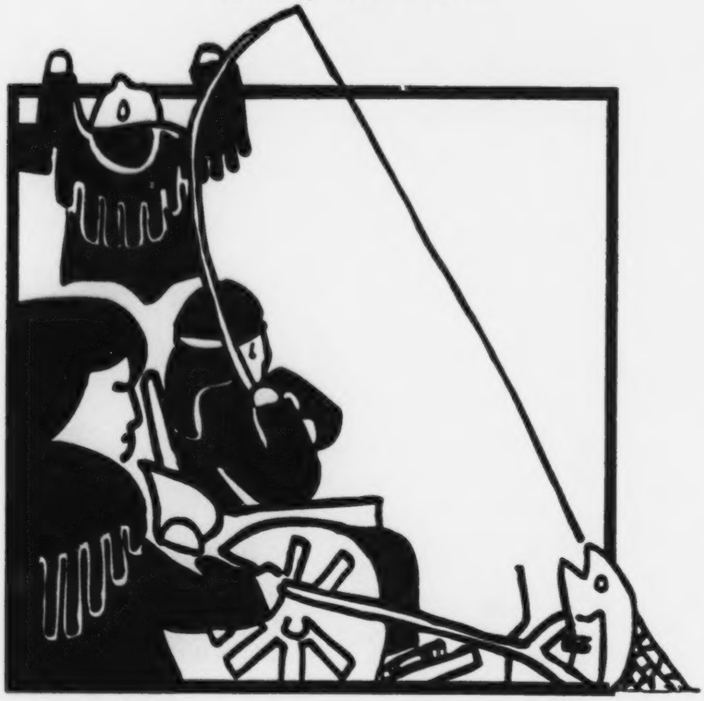
Record your responses in your reflective journal.

Assignment:

Using Handout 8.1 complete an activity skills matrix for a student who experiences a disability in your classroom. Indicate in the cells which activities will be provide instruction on (X); which activities you will capitalize on as incidents arise (I); and which activities are generalization opportunities (G). On this matrix indicate on the horizontal axis the regular education classroom schedule; on the vertical axis indicate the objectives from the IEP.

Section 8

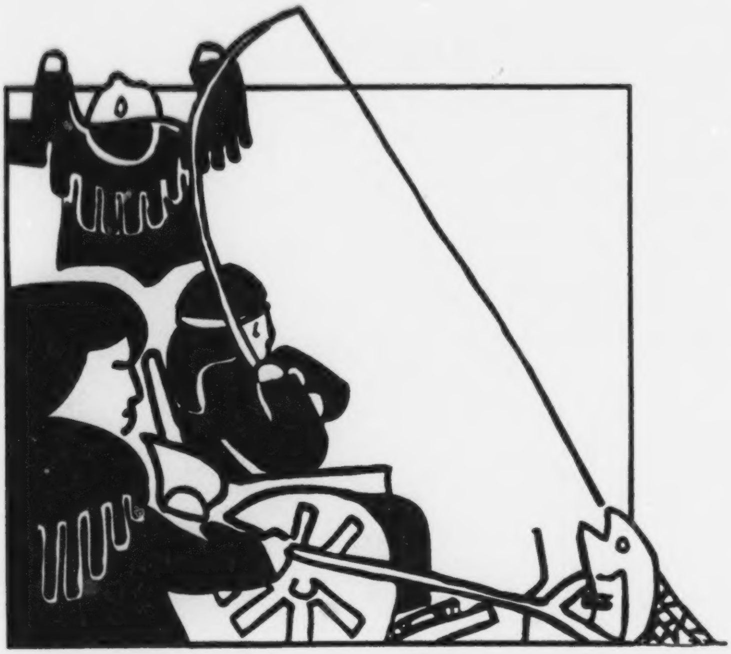
CURRICULUM MODIFICATION:
Activity Based Instruction
and the
Activity Skill Matrix



Readings

Section 9

Specific Curriculum Modification Approaches



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

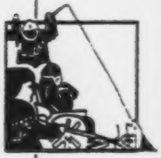
Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 9
SPECIFIC CURRICULUM MODIFICATION APPROACHES

PURPOSE



The aim of this session is to provide some specific curricular modifications that can be easily implemented in the regular education classroom. The goal is to use these curricular modifications to enhance and increase the inclusion of a student who experiences a severe disability. Some of these modifications will be ones that you are familiar with or that you actually use very naturally in your classroom right now. To a certain extent, we are highlighting teaching modifications that effective teachers do every day, sometimes systematically and sometimes instinctively. The general outcome is to improve the educational involvement for all students.

LEARNER OUTCOMES

1. Participants will identify and implement five specific types of curricular modifications.
2. Participants will identify when these strategies are being used.

CONTENT FOCUS

The goal of educational programs and schools are to facilitate students to be the most they can be (Falvey, Coots, Bishop & Grenot-Scheyer, 1989). Consider the philosophy of the school district or school in which you teach. What is the philosophy? Does it include the improvement of learning for **all** children? Schools who include the commitment to the education of all their children have realized that the full inclusion of students who experience disabilities provides that opportunity for the students who experience the most severe disabilities. This section introduces some specific curricular modification approaches that will assist you in creating a classroom where students who experience disabilities can be effectively included.

Some Beginning Thoughts

Develop a " least intrusive supports first" planning process.
(Jorgensen, 1992).

Just as we recognize the belief of the importance of a person first orientation, we likewise are beginning to believe that there needs to be an adherence to the concept of least intrusive supports. When teachers begin to consider ways in which a student who experiences a disability will be included in the regular education curriculum, providing just the right amount and type of assistance the child needs is an important key to keep in mind.

Create a culture of cooperation and belonging in each lesson, activity or classroom event.

If we as teachers encourage a feeling of cooperation and belonging in our classrooms, changes in curriculum and instruction will naturally follow. The idea of creating a circle of natural supports around each student in our classroom will help improve the instructional outcomes for all children. Bogdan and Taylor (1987) illustrate this point in the following passage.

> "Concepts like integration, normalization, life-sharing, mainstreaming, and others are only vehicles for change and not the end. When we reach a state of natural acceptance and inclusion of people with developmental disabilities, we will no longer need these ideas" (pp. 213).

Permission to partially participate.

It seems reasonable that the premise behind the principle of partial participation be used when including children who experience disabilities in regular education classrooms. Referring to the reading Partial Participation Revisited (Baumgart & Ferguson, 1991) you will see the following five major curriculum adaptations discussed in greater detail.

Provision of personal assistance.

Human resources can be one of the most effective ways to facilitate the inclusion of students who experience a disability. This personal assistance can come in a variety of different ways:

* assistance from teachers

* assistance from related service or support staff

* assistance from teaching assistants

* assistance from other students

* assistance from other school staff or community volunteers

* assistance from administrators

Modification of the sequence of skills.

Bypassing specific steps all together or altering steps in a sequence is another example of curriculum modification.

Modification of the rules

A teacher can modify the rules of an assignment or activity in the curriculum. This type of strategy easily accommodates a child with a disability. One example that Falvey, Coots, Bishop, and Grenot-Scheyer (1989, p. 148) provide is allowing a student to throw a baseball while at bat during a game rather than hitting a ball. Another example could be allowing a child to point to the answer on a communication board instead of verbally answering the question. A third example is allowing the student to take additional time beyond the time generally allotted to complete the assignment or activity.

Modification of the social environment or the changing to attitudes that interfere with the student's involvement in the activity

Some teachers have effectively used the strategy of facilitating a community or societal change modification. An impact on values, beliefs and attitudes or assumptions of neighbors, schools and community members have been created by supplementing standard curriculum by providing materials or examples that include role models of persons who experience a disability.

Use of specific equipment to assist a student in completing the activity.

Often creating specific materials or devices that assist students in completing or participating in activities have been used to facilitate the inclusion of a student who experiences a disability. Equipment such as specific seating devices or fabricated materials have been constructed to allow the child greater access to the activity or his/her environment. Sometimes these materials or devices are very simple and easy to construct (e.g., using a telephone book to support a child's feet to improve his/her stability during a writing task) or more complicated (e.g., switches or computerized communication systems).

Complete all readings now.

Complete Activity #1 Now

Complete Assignment #1 Now

HANDOUT 9. 1

SPECIFIC CURRICULUM MODIFICATIONS

* Provision of personal assistance.
* Modification of the sequence of skills.
* Modification of the rules.
* Modification of the social environment or the changing to attitudes that interfere with the student's involvement in the activity.
* Use of specific equipment to assist a student in completing the activity.

OVERHEAD 9.1

What is important is being cared about by another human being. If Shawntell is really going to be an integral member of her community, she will need to rely on her friends who want to be involved with her because they are her friends.

(Strully & Strully, 1985, p.7-8).

OVERHEAD 9.2

We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven't done it so far

(Edmonds, 1979, p. 34).

FOOD FOR THOUGHT

*****The division of students into groups and tracks assumed to ensure considerable likeness in attainment is a meat ax approach to problems requiring much more sensitive curricular and pedagogical approaches (Goodlad, 1984).**

READINGS

Falvey, M., Coots J., Bishop, K., & Grenot-Scheyer, M. (1989). Educational an curricular adaptations. In S. Stainback, W. Stainback & M. Forst, (Eds.), Educating all students in the mainstream of regular education (pp. 143-157). Baltimore: Paul H. Brookes.

Ferguson, D. & Baumgart, D., (199). Partial participation revisited. Journal of the association fro persons with severe disabilities 16(4). 218-227.

Ford, A., Davern, L. Schnorr, R. (1992). Inclusive education: "Making sense" of the curriculum. In S. Stainback & W. Stainback, (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all student (pp. 37-64). Baltimore: Paul H. Brookes.

Helmstetter, E. (1989). Curriculum for school-age students: The ecological model. In F. Brown & D. Lehr (Eds), Persons with profound disabilities: Issues & practice. (pp. 239-264). Baltimore: Paul H. Brookes.

Jorgensen, C. M. (1992). Natural supports in inclusive schools: Curricular and teaching strategies. In J. Nisbet (Ed.), Natural supports in school, at work, and in the community for people with severe disabilities (pp. 179-215). Baltimore: Paul H. Brookes.

SECTION ACTIVITY OR ASSIGNMENT

Activity #1: Identification of Curricular Modification Strategies

Using Table 7. 1 in the article Natural supports in inclusive schools (Jorgensen. 1992. p. 196-204) identify the type of curricular modification strategy used to support Josh's inclusion in the regular education classroom. For example, did the teacher use the strategy of adapting the rules, materials, sequence, social environment or personal support to accomplish the inclusion. Make sure that you respond to this by specifically identifying the modification to each activity listed from 8:00 AM to 2:30 PM. (You may also review Handout 9.2 for a guide).

Full inclusion teachers and teaching assistants should work on this activity together. Share your results with at least one other teacher and your principal in your school.

Activity #2: Identification of Students IEP objectives and Consideration of Curricular Modification Issues.

List all the curricular areas in your class. Now identify all the objectives that you have for these areas for a given unit, theme or lesson for a day. Identify the IEP objectives for the student in your class who experiences severe disabilities.

Next, specifically describe what materials or adaptations will be necessary to allow the student to either practice the skill or learn the behavior/objective through the regular education unit/theme or lesson. (Use Table 1 in Falvey, Coots, Bishop, and Grenot-Sheyer, 1989, p. 149-151, as a guide).

Full inclusion teachers and teaching assistants should work on this activity together. Share your results with at least one other teacher and your principal in your school.

Assignment #1.

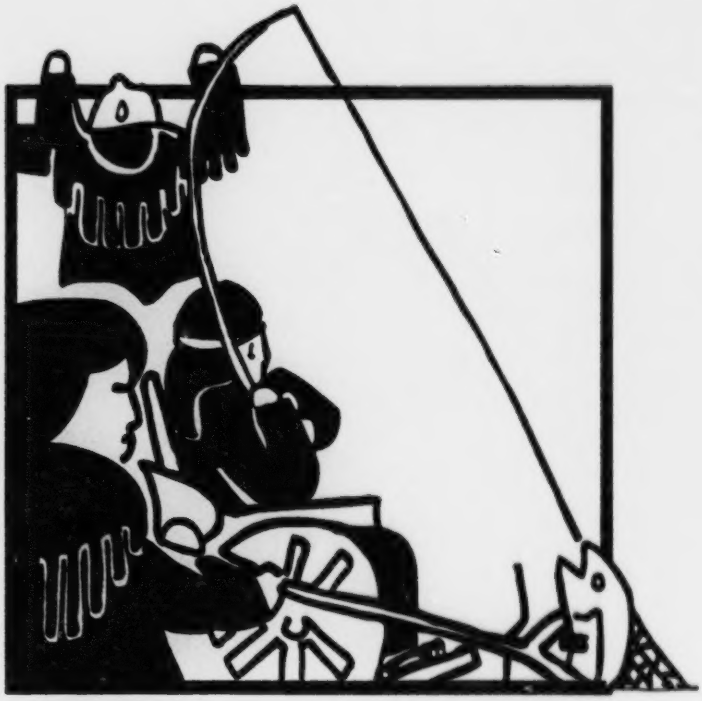
Using Figure 7. 1 in the Jorgensen chapter as a guide create a schedule for a student who experiences severe disabilities to be included in your classroom. Make sure that you use the headings: Time; Class Activity/ Nondisabled; Student with Disability Inventory; Curricular Solution or Support. Examples in the appendix will serve as a model.

Video tape portions of at least five activities that involve different curricular modifications and solutions. Include a video guide describing the activity, the curricular modification, and the results.

Full inclusion teachers and teaching assistants should work on this activity together. Share your results with at least one other teacher and your principal in your school.

Section 9

Specific Curriculum Modification Approaches



Readings

JASH
[illegible]

[illegible]
The Association for Persons with Severe Handicaps

Partial Participation Revisited

Dianne L. Ferguson
Specialized Training Program
University of Oregon

Diane Baumgart
University of Idaho

This article reanalyzes the principle of partial participation, which was introduced in 1982 to support educational programming for students with the most severe and profound disabilities. The article presents four "error patterns" in how the concept has been used, some reasons why such error patterns have occurred, and strategies for avoiding these errors.

DESCRIPTORS: profound disability, curriculum development, schooling outcomes, partial participation, adaptations, family-referenced, community-referenced

As the 1990s begin, it seems appropriate to reflect on the reforms of the recent past. In a scant 15 years the changes in how we think about all aspects of educational experiences for students with severe disabilities have been dramatic, forceful, and controversial. Indeed, many of our current reforms seek to modify the most progressive innovations of only a few years ago. This article proposes just such a reanalysis of the notion of the principle of partial participation, which was introduced in 1982 (Baumgart et al.). We begin by reminding the reader what occasioned the original article with a brief review of the curricular issues, and the students, that it sought to address. We then describe four ways we believe the notion has been misunderstood, and even misused, in the ensuing years. Finally, we offer an explanation for the source of these "error patterns" and briefly describe four strategies for avoiding them.

We revisit the notion of partial participation in this way because we believe it continues to be an important idea for helping teachers conceptualize and implement effective educational programming for some students with very severe disabilities. We further believe that some of the frustrations felt by teachers of students with very severe disabilities and their parents can be traced to the effects of the four error patterns we describe. We hope that revisiting the notion of partial participation, with all the advantages of critical hindsight, will help.

Why We Needed Partial Participation

The increasingly sophisticated behavioral technology available in the mid-1970s allowed teachers and researchers to confirm quickly that students previously excluded as too severely disabled to be "educable" could indeed learn. This confirmation underscored the appropriateness of the insistence in the Education of the Handicapped Act that *all* students, regardless of the type and degree of their disability, should participate in public schooling. What our field continued to debate was *what* to teach and for what purpose. Each successive reform of our curricular logic seemed driven by our dissatisfaction with the impact our teaching was having on students' lives, especially those students with the most extreme disabilities. Did what students learn make any substantive difference in their lives? Early efforts to use the prevailing developmental logic certainly gave teachers a place to start (Baldwin, 1976; Cohen, Gross, & Haring, 1976; Haring & Bricker, 1978; Haring & Brown, 1976), but the shortcomings were all too quickly obvious (Barrett, 1979; Shane, 1979; Switzky, Rotatori, Miller, & Freagon, 1979). Even when students eventually mastered the developmental skills, teachers and families were left wondering if learning would ever really make a difference. The common use of chronologically age inappropriate materials damaged students' already tarnished social images, encouraging more, not less, stigma. Teachers and students were left with little guidance from the developmental sequences when physical and sensory impairments made some skills simply unattainable.

The developmental logic for curricular decision making was quickly replaced by a functional logic (Brown, Nietupski, & Hamre-Nietupski, 1976); that is, teach only those items from developmental or other schedules that are useful in the student's life either immediately

---

An expanded version of this article with more specific examples and resources is available from the first author at the Specialized Training Program, University of Oregon, Eugene, OR 97403.

Preparation of this manual was supported in part by grants G008730420 and G008730403 to the University of Oregon's Specialized Training Program, and grant H029A0039 to the University of Idaho from the U. S. Department of Education, Office of Special Education and Rehabilitative Services. However, the opinions expressed therein do not necessarily reflect the position or policy of the U.S. Department of Education and no official endorsement by the Department should be inferred.

Requests for reprints should be sent to Dianne L. Ferguson, Specialized Training Program, University of Oregon, Eugene, OR 97403.

BEST COPY AVAILABLE

at some time in the future. This logic certainly helped teachers narrow the field of teaching choices from that previously offered by the more commonly used developmental sequences, or other compendia of functional skills, but it did not narrow it enough. Still too many things might be functionally worthy. Families and teachers still struggled to see the effects of students' learning on those students' lives outside, as well as inside, the classroom. An unclear, and often much too distant, future was simply not enough promise.

It was in this climate of a rejected developmental logic, but a still unsatisfying conceptualization of a functional alternative, that the ecological domain strategy for selecting curricular content emerged to shift teachers from lists of developmental skills to examining students lives as the most appropriate source for curriculum content (Brown et al., 1979a, 1979b). Teachers were advised to examine students' homes and neighborhoods to discover actual activity patterns that might be shared by students' nondisabled peers, and then teach those activities and functional skills that would directly support students' performance of the activities in their naturally occurring environments. Teachers were encouraged to teach the resulting functional skills in the context of the actual activities in order to maximize the likelihood that their students would use their learning (Belmore & Brown, 1978; Brown et al., 1980; Falvey, Brown, Lyon, Baumgart, & Schroeder, 1978; Hamre-Nietupski, Nietupski, Bates, & Maurer, 1982).

Several flaws still remained in the curricular reform logic. The newly elaborated curricular decision-making logic still depended, at least implicitly, on the assumption that students would achieve independence in the selected functional activity or skill. Being able to improve our curricular focus, we seemed to believe, would result in students actually becoming independent in the performance of those skills and activities most needed in their lives. Although effective for many students, the underlying assumption of independence seemed to exclude those students with the most severe disabilities. The principle of partial participation was proposed to ensure that even those students who might never be able to acquire a full enough complement of functional skills to *completely* participate in the activities of their lives would still be able to learn enough to *partially* participate. That is, the principle of partial participation was generated in order to make our curriculum and programming reforms also "work" for students with very severe cognitive and multiple disabilities.

Taken together, the activity-based curriculum, buttressed by the notions of partial participation and functional outcomes, was meant to assure that school would matter to all students in some very direct and visible ways. What had not changed was the still firm rejection of a developmental logic for curriculum decision making. Consequently, teachers had no means for integrating developmental and other existing decision-making approaches with other aspects of the teaching and learning process. Unfortunately, we also may not have fully appreciated the complexity and challenge presented by those students with the most extreme disabilities. The new curricular approach, which included the principle of partial participation, still relied on a behaviorally oriented instructional technology and a student's repertoire for deciding what to teach. As a field, special education is only now beginning to discover the need to reconsider instructional as well as curricular approaches, very likely expanding instructional capacity to embrace other understandings of teaching and learning in addition to a behavioral approach (Baumgart, Johnson, & Helmstetter, 1990; Brown, Helmstetter, & Guess, 1986; Ferguson & Juniper, 1990; Guess & Thompson, 1991; Meyer, 1991).

Patterns of Error in Using Partial Participation

As the special education field has tried to use the notion of partial participation, the concept has acquired many new interpretations. It is certainly true that for many students the notion has provided a way to expand their participation and learning in a variety of more natural settings; for other students, however, the notion has reaped much less positive results. Indeed, it seems as if the concept of partial participation was adopted only partially. We believe this partial application has resulted in renewed confusion and frustration for students, families, and teachers. This section briefly describes four error patterns we find in the current use of partial participation. In each case, it is the kind of participation that students achieve that betrays the misunderstanding.

Passive Participation

An illustrative vignette. John's IEP calls for him to participate in daily activities in the fourth grade class. Because John seems to be calmed by music, his teacher has decided that he should go to music class with the fourth graders three times a week, and participate in the after lunch group reading activity every day. When it is music time, John and a classroom assistant meet the fourth graders at the music room. John and his assistant usually position themselves on the side of the room. The assistant participates in the singing and instrument playing, touching John often to encourage his listening. After lunch, another assistant drops John off in the fourth grade classroom on his way to his own lunch break. For the next half hour different students take turns reading their library books aloud to John.

The error pattern. This error results from defining participation as presence. Students who formerly experienced a fairly narrow range of environments and instructional activities now find themselves merely present in more natural community and school environments. Typically this presence involves only the opportunity to observe others engage in activity or, at best, to receive the benefits of the completed activity. Thus, using the school library might only mean that you are present while someone else selects a book and carries it back to the classroom for you. Being out and about in the community and school as a passive spectator becomes the point—substituting both for more active participation and for systematic instruction.

Of course, not all examples of passive participation necessarily constitute an error. As in the example of John, sometimes being read to by your classmates might be appropriate and image enhancing. It is when passive participation is the dominant form of participation that the practice becomes problematic.

Myopic Participation

An illustrative vignette. Maria's IEP meeting is scheduled to occur in 2 weeks. Lori, Maria's teacher, has already talked with Maria's mother and knows that she really wants Maria to participate more in community training, especially different kinds of shopping. Because Maria's mother doesn't drive, they shop together almost every day at the small corner grocery, bakery, and other stores in their neighborhood. Maria's mother would like Maria to act better in the stores and maybe even help more. Lori has taken Maria to the grocery store she uses for all her community training to assess her shopping skills. Lori discovered that Maria seems to enjoy pushing the cart but, about halfway through shopping, sits down in the aisle. Sometimes she screams. Lori has decided to have her use picture cards to find a drink and a snack and then have her sit on the bench outside the store to eat while the other students finish their shopping.

The error pattern. Myopic participation results when teachers select a student's involvement in potential learning activities using only one, or just a few, of the relevant perspectives. Lori has included shopping in Marie's instructional agenda but only in a manner that fits within her own established teaching format. That is, the basis for choosing some parts of an activity over others fails to include consideration of the full range of variables that should enter into curricular and programming decisions. Another teacher might select the first part of an activity for participation, the easiest part for the teacher or student, the parts that most frequently recur, or those that seem to take the least amount of time. Often, the resulting instruction fails to support family goals and needs, as in this example about Maria. While any components taken alone might be appropriate for a student to learn, the error lies in not considering the student's current and potential skill repertoire, the student's preferences, long-term learning needs, family priorities, reactions of peers, and other socially validated, community-referenced guidelines.

Piecemeal Participation

An illustrative vignette. Mark has devised a 25-min lesson format, with 5 min for transitions throughout the morning. He and his two staff take small groups of two to four students for each lesson. After lunch, the class is divided into three groups, and each staff person takes three or four students out for community training at either the public library, a nearby grocery store, or the city park. Larry, one of the 11-year-old students in Mark's class, has the following schedule of lessons and activities on Mondays, Wednesdays, and Fridays: (a) play skills, (b) object discrimination and labeling, (c) snack/bathroom/recess, (d) language group, (e) physical therapy, (f) lunch/bathroom, recess, (g) checking out a story tape at the public library, (h) art or music, and (i) bathroom/departure. Every day Mark reminds Larry's parents to play the story tape at home so he can be sure that Larry will understand why he is going to the library.

The error pattern. It seems that some teachers only use the notion of partial participation, and the accompanying ideas of functional, activity-based, age-appropriate instructional curricular content, *some of the time*. These ideas are not combined with other, more familiar, ways of deciding what to teach to create an integrated curricular logic. Instead, it seems that partial participation in real activities of life only occurs during an "activity" or "community" time, carefully scheduled opposite lessons derived using a totally separate, often developmental, curricular logic. In essence, the student experiences a piecemeal approach to partial participation, curriculum, and involvement in life. Classroom-based instruction, while it may succeed, fails to connect with the student's out-of-class, functional curriculum times. Instead of using classroom instruction to prepare a student for out-of-class, activity-based instruction, classroom learning may even compete. The relevance of both in- and out-of-class instruction can be lost for the student. This lack of coherence in the student's curriculum can slow a student's understanding of and competence in real, functional, meaningful activities, clearly minimizing the impact of schooling on the student's life outside of school.

Of course, the power of piecemeal participation will vary somewhat with a student's age: there is simply more time to build connections for students who are quite young. Nevertheless, even very young students need to have some understanding of why they are learning what they are learning and how their time in school relates to the rest of their lives.

Missed Participation

An illustrative vignette. Sarah is 16 and has just started attending Acres High School. About 10 min before the bell for first lunch, Sarah leaves ceramics class to head for the lunch room. Walking is difficult for Sarah and she needs to stop frequently to rest. Despite the extra time it takes Sarah to get to the lunch

BEST COPY AVAILABLE

room, her teacher and therapist think it is a good opportunity to work on walking, especially because they know she is usually eager to eat lunch. Her teacher has identified enough handy rest stops along the way so Sarah doesn't get too frustrated and still gets to the cafeteria line before the lunch bell. Once in the cafeteria, Sarah pushes her tray along the hot lunch line. The teacher helps Sarah to choose each item, holding up a picture card so the cafeteria worker knows what Sarah wants and then assisting Sarah to grasp each item and place it carefully on her tray. At the end of the line, the teacher has arranged for a cart where Sarah can put her tray because it is still too hard for her to carry the whole tray to a table. Instead, the tray waits on the cart while Sarah carries one or two items at a time to a seat of her choice. When Sarah is able to carry a whole tray of food she will be able to choose a fast food lunch. (The fast food area doesn't have a shelf for sliding the tray.)

The error pattern. This vignette illustrates that, in a few instances, it seems that the point of partial participation is missed altogether. Our overarching commitment to helping students "be independent" encourages us to try to teach or involve a student in *all* the parts of an activity. We also seem to interpret "doing things independently" as doing them alone, or "all by yourself," which can result in too narrow a prescription for performance. The standard of "all by yourself" might mean that a student can only reasonably attempt a very small amount of the whole activity (only buying one thing in a grocery store, or just pushing the switch to turn on the appliance). "All by yourself" can also take a very long time, require burdensome accommodations and adaptations, or restrict the interactions between teacher and student to formal instruction. As a consequence, the implicit expectation of "all by yourself" can limit rather than expand participation.

When first considered, it might seem too restrictive to ever decide that a student will always have another person present for some activities. On further consideration, the needed presence of another person offers teachers and students the opportunity to enhance participation by having the other person perform those parts of the activity that are burdensome, time consuming, or image damaging for the student. The resulting shared participation might truly enhance the person's enjoyment at finally *doing* the activity rather than spending years laboriously trying to learn to do it, and does not necessarily prevent later acquisition (even if partial) of previously supported components. As noted for an earlier "error," the age of the student should influence this instructional emphasis, but not so much that natural, shared, and enjoyable participation is prevented.

Sources of Errors

One of the reasons it is so hard to think about active participation for students with extremely severe and multiple disabilities (the very group the principle was created to better include) is that these students are often unavailable for learning, providing teachers with very narrow windows of teaching opportunity. Students' complex and multiple disabilities may cause them to be asleep or drowsy, agitated or crying, or even awake and seemingly alert but not "connecting to the environment in any recognizable way" (Ferguson & Juniper, 1990, p. 4; Guess et al., 1988). When for noticeable proportions of students' days they are unavailable for learning, active and contributory participation becomes not only difficult to accomplish but increasingly difficult for teachers to imagine.

A second reason active participation is difficult to think about for students with very extreme disabilities is that they may have very few behaviors (e.g., orienting to some sight or sound, assisted movement of a hand or arm, a few nonsymbolic vocalizations). Most teachers, however, depend upon a behaviorally grounded instructional approach that seeks to expand a student's behavioral repertoire—that is, to *add* behaviors by building on what students can already do, thereby remediating the performance discrepancies between students with disabilities and their nondisabled peers. While this instructional approach serves us well with many students, the very few behaviors that some students possess are so small and fragile that teachers struggle to shape tiny additional pieces of behavior or perhaps just to improve the consistency with which a student responds. Too often these instructional beginnings become the sum total of instruction because the student fails to respond either quickly or consistently. Teachers are left feeling unsatisfied that they are meeting the curricular challenge of making enough of a difference in students' lives. Indeed, those skills that it seems most appropriate to *teach* some very complex and disabled students may more nearly resemble the developmental skills our curricular reforms have rejected than the functional, activity-based outcomes being achieved with other, more able students (Ferguson & Juniper, 1990). Having moved away from reliance on a deficit-remediation model for some learners with severe disabilities (Meyer, 1991), we seem to retreat to it for those students who experience the most extreme disabilities. Certainly these students spend their school days more passively than actively engaged in learning (Downing, 1988).

In sum, we think partial participation is not:

1. Meant to be used alone for deciding what to teach. The concept depends upon, and is grounded within, notions of teaching students how to participate in the real activities of their age peers that occur routinely in life both in and out of school. This requires attention to student and family preferences, family activities, the ideas and reactions of peers, and the ethos of the community, to mention just a few.

BEST COPY AVAILABLE

2. Meant to be used in alternation with a developmental logic for deciding what to teach. As we will explain in more detail later, developmental information is not only useful, but is necessary to effective educational programming for students with severe disabilities, but it is not a useful curriculum decision-making logic. Activity-based curriculum with its attendant dimensions, including partial participation, is the most effective way to decide *what* to teach. More traditional developmental information can greatly assist teachers' decisions about *how* to teach.

3. A way of achieving social inclusion at the cost of instruction and growth. Schooling is about learning. Passive participation in the hopes of social acceptance is a poor substitute for growth in functional competence, even when the increments of growth are small and fragile.

Avoiding Errors In The Application of Partial Participation

We believe that the notion of partial participation is still quite valuable. Originally, it served to affirm that functional, age-appropriate, community-based and community-referenced, student- and family-referenced programming did indeed apply to even those students with the most severe disabilities. Despite the errors of interpretation and application we have described, we believe it still has this power. Even students with very extreme and complex disabilities, who seem to "do" very little, can be supported to participate actively in the life of their communities in ways that help others view them as contributing members.

The concept of partial participation supports a mission of schooling based on the concept that, whatever any student learns, that learning should allow him or her to participate actively in the community so that others come to care enough about what happens to that student to look out for him or her (Ferguson & Jeanchild, 1992). This section very briefly describes four strategies that might help teachers rediscover this essential spirit of partial participation.

Strategy 1: Achieving *Active* Instead of Passive Partial Participation

One strategy for avoiding dependence upon teaching isolated skills and reliance on passive presence is to think less about adding to students' behavioral repertoires and more about increasing opportunities for students to practice their admittedly small and tenuous current behaviors in real school and community activities. Let us hasten to add that we are not arguing that increasing students' behavioral repertoires is not a good idea. However, we agree with Meyer (1991) that to "set that goal as the *only* thing to do is problematic" (p. 633), perhaps especially so for students with the most extreme disabilities. We simply do not have the medical and educational ability to remediate the very large performance discrepancies experienced by students with the most severe disabilities. Yet if schooling is to produce meaningful outcomes, we cannot afford to wait to acquire this technical expertise.

Table 1 illustrates how a focus on practicing ability instead of adding behaviors might occur for one student in just four different school activities. A variety of curricular planning approaches (e.g., Baumgart et al., 1990; Falvey, 1989; Ferguson & Wilcox, 1987; Ford, et al., 1989; Guess & Helmstetter, 1986; Sailor et al., 1989) contain the specific planning tools that teachers can use to first establish a routine of real, age-appropriate activities, and then determine how to maximize students' opportunities for practicing the behaviors they currently possess, even if small and inconsistent.

Using a "practice abilities" logic rather than an "add behaviors" logic for instruction does not mean that teachers will not be building students' skills. Rather, it is a matter of how teachers frame their efforts: Practicing abilities within a context is more likely to result in building skills for students with extreme disabilities, if skills are to be built at all. Although students may never complete a movement entirely alone, they may begin to actively contribute to a movement, or continue a movement they have been assisted to begin.

In some situations a student's few behaviors might not substantially change, but physically supported *active* participation in real settings can still result in two important benefits. First, the student's physical condition and health might be better maintained as a consequence of physically supported active participation (increasing joint flexibility and range of motion, for example). Second, well-constructed and supported active participation is more likely to enhance the image of the student in the eyes of nondisabled peers, encouraging peer interest and even involvement. It is this interest and involvement of peers that will support the continued community presence of students with very severe, multiple disabilities. Ferguson and Juniper (1990) provided a more detailed description of how one teacher used this practice abilities strategy and developed a data management system to support it.

Strategy 2: Avoiding Myopic Participation by Attending To Multiple Perspectives

There are good reasons why teachers often lose track of some of the important perspectives needed for functional curriculum planning. The work of creating effective educational experiences for a student with severe disabilities, indeed, for any student, is exceedingly complex. First, many teachers do not receive specific preparation in how to access and use multiple perspectives. Indeed, their own experience of learning how to teach may not have been well informed by multiple perspectives. Second, teachers rarely have all the time and resources required to meet the challenge. Daily they must make hundreds of decisions, very rapidly, under

Table

"Practicing Abilities" Examples

Student: Julie
Age: 10
Abilities Targeted for Practice: reach/touch/push pass; grasp/hold/release

Activity	Opportunity for practice
Activity: Making fruit salad for snack/lunch	The teacher assists Julie to pick up a banana and pass it to Clark, who peels it and passes it to Dana, who begins to slice it. With support, Julie picks up and passes another banana to Clark, who peels and slices. While Clark is slicing, Dana passes his slices back to Julie, who is assisted to reach/touch/push them into a bowl held at the edge of the work surface. Julie passes an apple to Clark to slice and add to the bowl, and another to Dana, who receives instruction on proper slicing from the teacher. Dana returns his apple slices to Julie, who is supported to reach/touch/push them into the bowl. The activity continues with additional fruits.
Activity: Library assistant job	Julie and Lisa check in for their library job by signing the student assistant attendance sheet. After Lisa prints her name, Julie is assisted to reach/touch/push a name stamp. Today's assignment is to reshelve books. The teacher piles books from the cart on Julie's tray and assists her to grasp/hold/release each one as she passes it to Lisa, who reads the letter on the spine and puts it on the shelf with the same letter. Later another student assistant will insert the books in their appropriate alphabetical location on the shelf.
Activity: Math drill	Julie is in the second grade. Tony and Clark, two of her classmates, are working on an addition and subtraction facts drill during small group time. Julie participates as the teacher's assistant. Sitting next to Julie and facing Tony and Clark, the teacher assists Julie to grasp and hold each math fact card for Tony and Clark to solve. Julie releases the cards into a box on her wheelchair tray, which she then helps the teacher put away on the shelf under the windows.
Activity: Cafeteria helper	The cafeteria server places half pints of milk on Julie's tray. As primary-age students come through the line, the cafeteria server receives their tray from another server, adds the dessert, and assists Julie to reach/touch/push pass the milk into the remaining square on the combination plate/tray before handing it to the student.

conditions of ambiguity, instability, and value conflict. Given such conditions, it is hardly surprising that some of their curricular and instructional decisions are affected more by convenience, efficiency, and ease than by carefully articulated preferred practice ideals. Too often our field's new practice recommendations fail to adequately respect the complexity of teachers' work, making it difficult for them to change their practices or adopt new ones. We offer three suggestions that can help teachers to access some often overlooked perspectives.

Use family- and community-referenced assessment strategies. Traditional approaches to assessment for students with severe disabilities have proved inadequate for three reasons. First, students with severe disabilities need to formally learn things their nondisabled peers acquire informally, and second, students with severe disabilities cannot always "use" what they have learned when it is needed. Third, these students will simply not learn all the things, either formally or informally, that their nondisabled peers learn in roughly the same period of time. Given these basic learning challenges, it makes the best sense for teachers to select those "things" to teach that will have the greatest impact on helping students become as competent as possible in their everyday lives.

There are several available strategies for doing activity-based and family-referenced assessment (Baumgart et al., 1990; Falvey, 1989; Ferguson & Wilcox, 1987; Ford et al., 1989; Guess & Helmstetter, 1986; Sailor et al., 1989). Activity-based, family-referenced assessment is particularly critical to curriculum planning for students with the most severe disabilities because it focuses on a student's *abilities*. As we argued above, improving the consistency and quality of a student's existing abilities, even when very small, is the key to achieving active partial participation. The *activity* focus of such assessments help teachers design learning experiences that will more easily transfer to a student's flow of experience. Activities, not skills, are the real building blocks of life for all of us; yet the overwhelming disabilities of some students can encourage a focus on skill building in preparation for eventual activity participation.

Use ongoing instructional information systems. Meyer and Janney (1989) recommended that teachers move away from collecting trial-by-trial data, a strategy that more nearly resembles that of single-subject design research, toward data collection strategies that are formative, easy, and reflective of multiple outcomes. To this we would add that teachers should collect data that also reflect multiple perspectives. For example, existing data-collection strategies can be expanded to encourage instructional staff to rate their perception of the student's reaction to and enjoyment of the learning activity and invite their suggestion for improving both the process and the outcomes of the learning activity. The simplest version of this strategy is a blank piece of paper that prompts the instructor to briefly describe what occurred in the lesson, with an analysis of the lesson's appropriateness, effectiveness, and need for change.

Use ongoing outcome information systems. No matter how well conceived and planned our educational programs may be, teachers know that things always change, usually rather quickly. Anticipated outcomes may simply not result. Because teachers rarely have the luxury of being closely involved in all instruction, they may not realize that things have changed quickly enough to make the necessary changes to maximize student learning. A simple form that collects ongoing information from employers, regular classroom teachers, and other community members might help teachers anticipate problems and needs before big issues arise while confirming that planned learning outcomes are occurring from others' points of view.

Another version of this strategy is the use of simple student and family questionnaires that generate information about family and student satisfaction with the current educational program as well as suggestions for improvements that might more closely meet family and student needs. An entire program or school might then share the information summarized from such questionnaires with families, allowing each parent to compare their opinions and reactions to those of other parents responding to the survey. This comparison can sometimes help parents to think in a different way about their involvement with school. Of course, a teacher can also use this concept, either in the form of as a paper questionnaire or a phone interview, to access parents' perspectives several times a year.

Strategy 3: Avoiding Piecemeal Participation by Using Information from Multiple Sources for Ongoing Curricular Planning and Program Development

The error of piecemeal participation seems to occur when teachers try to shift their program orientation to encompass an ecological/activity-based approach. Many teachers begin this change in orientation by designating one part of the school day for community instruction. This gradual approach is certainly a good strategy for beginning a programmatic revision, but too often teachers never completely revise their curriculum decision-making logic. Instead, the initial strategy of "adding on" a period of community-based instruction becomes permanently institutionalized. During the remaining periods of the day, teachers continue to teach the same developmentally derived curriculum content. The result for students is piecemeal participation.

Piecemeal participation can also occur when the different activities and routines of a student's day, however derived, are not organized to lead from one to another in a way that is sensible and meaningful to the student. Even well-conceived activity routines can be experienced by a student in a fragmented, piecemeal way. Students may not understand changes from one activity or location to the next or how instructional experiences within and outside of school are supposed to relate to each other. Instructional transitions can seem to occur out of context and routine, leaving students confused about "what's next" and "why." For students with very severe disabilities, this discontinuity may be particularly troublesome. Recognition of familiar, meaningful routines can hardly occur if such routines do not really exist. We propose two strategies: (a) merging an ecological/activity-based perspective with developmental, behavioral, adaptive, communicative, and biobehavioral perspectives, and (b) using ongoing planning and program improvement processes to help keep students' school experiences and schooling outcomes in sync.

Merging "competing" perspectives. Unfortunately, traditional, developmental, and ecological/activity-based approaches to assessment and curriculum development have come to be viewed by many teachers as mutually exclusive. We believe that a strategy of careful synthesis of these "competing" perspectives both makes good educational sense and will respond to the "error" of piecemeal participation. This synthesis strategy involves two phases: (a) determining what and where to teach, and (b) determining how to teach. Decisions about what and where to teach must identify the environments and activities within which a student does or can participate in order to achieve greater actual and/or perceived competence as a consequence of instruction. That is, figuring out what to teach means identifying the ways a student's life will change from the points of view of students (where possible) and families. Procedures for identifying environmental contexts and activities are available from a number of sources (e.g., Falvey, 1989; Ferguson & Wilcox, 1987; Ford et al., 1984; Guess & Helmstetter, 1986; Sailor et al., 1989). In general, they all assist teachers to solicit information from students, families, the life-styles of nondisabled peers, community resources, and other socially significant sources to identify both a fairly extensive list of possible environments and activities within which to target instruction. This initial list is then reviewed in more detail, and a smaller priority list is selected based on additional practical realities (places and activities logistically, temporally, and financially feasible for the program to access) and the student's repertoire (learning rate, physical and sensory abilities, understanding of events and objects, learning characteristics and needs).

Completing this selection of what and where to teach, which is grounded more in the perspectives of students and families than in that of the teachers, sets the stage for phase two: deciding how to teach, or how to implement these curricular decisions. At this point, sources of information teachers have traditionally used for deciding what and where to teach are more appropriately used. Teachers should generate and consider a variety of additional information from at least developmental, behavioral, adaptive, communicative, and biobehavioral sources for deciding how to teach. Finally, all curricular and program decision making—what, where, and how to teach—should be guided by an effort to maximize both the amount of learning that will result and the image produced by the process of instruction.

Ongoing planning and program improvement. While teachers typically receive preparation in evaluation and management skills as they pertain to student progress, rarely do they also receive preparation in overall program evaluation, management, and improvement strategies. Yet being able to see and evaluate your efforts in terms of the "bigger picture" of broad schooling outcomes for students is especially effective with students who are especially difficult to teach. Some materials and professional support are emerging that address these needs for teachers (Ferguson, Flannery, & Parker, 1988; Ferguson & Parker, 1988; Fredericks & Piazza-Templeman, 1990; Goodlad, 1990; Helmstetter et al., 1987). Although strategies vary in their specifics, most involve at least the following components.

First, this kind of teacher-managed program development requires that teachers use some strategy for articulating a mission or describing the things they wish their program to accomplish. Second, teachers need a way to identify things to work on in addition to their usual duties and tasks that will move them toward attainment of at least some aspect of their mission. Often this second step results in the identification of program development goals and objectives. Third, teachers must develop some kind of practicable action plan that will prioritize and guide activity. Finally, teachers must annually reflect upon their mission or descriptions of desired program accomplishments in order to revise mission, accomplishments, goals, and action plans in response to the year's efforts and other new information or values. Whether teachers use this four-step process or some other ongoing planning procedure, the work of program management and program improvement is usually easier and more productive when done in the context of teacher work groups (Ferguson, in press) or in-service workshops and consultations (Ford et al., 1984; Fredericks & Piazza-Templeman, 1990; Helmstetter et al., 1987).

Strategy 4: Avoiding Missed Participation by Enhancing Image and Achieving Interdependence

The error of missed participation seems to occur because of an underlying confusion about the meaning of independence. Teachers design instruction to fade the person providing instructional support. Of course, this is precisely what a logic of stimulus control requires. Good instructors are always seeking to minimize their own role as the student's ability to respond to naturally occurring cues increases. It is this notion of fading the person, however, that also leads to missed participation.

There are two reasons why another person might always be present with individuals who are extremely disabled. One reason has to do with the functional impact of the person's impairments, the other with lifestyle. For example, a person who cannot see well enough to identify curb cuts or make safe judgments about when to cross a street will always need another person to accompany him or her in the community. Someone who's limbs cannot reach out far enough to open doors or select items in the cafeteria line will also require another individual to perform these critical skills. If a person lives with family or housemates, the sharing of domestic responsibilities may require at least two members of the household to shop for weekly groceries. Shared shopping offers the opportunity for a person with very severe disabilities to depend upon their more able shopping partner to do those parts of shopping that are particularly difficult, time-consuming, or burdensome.

In situations in which the student's abilities, impairments, and life situation suggest that some performance gaps will simply not change or not need to change, teachers should shift their instructional choices to emphasize interdependence and image. Consider the following example:

> Paul and his mother always do the family grocery shopping together. Since they live close to the store, they typically walk. Paul carries the two-wheel grocery cart on the back of the motorized wheelchair he is just learning to use. Paul's mother stops before crossing streets, naturally cuing Paul to stop and wait for her to begin to cross. He then follows closely alongside her to drive himself across the street. Once inside the grocery store, Paul heads for the produce section, where they always begin their shopping. While his mom selects other fruit, Paul selects the bananas he eats with his cereal most mornings. His mom turns the grocery cart so he can easily put the bananas in the cart. As she selects other produce, she hands it to Paul, who drops it in the baby seat section of the cart. As Paul and his mom progress through each aisle, Paul selects some items (cat food, toilet paper, ice cream, oatmeal, soup, tuna fish, cookies) and is handed others (things they need that are on high or low shelves

he cannot reach, or that are too heavy, which he then drops or throws into the cart. Paul's mom selects his participation on each aisle according to three rules:

1. Paul should select items he directly uses (the cat food, ice cream, juice, soup).
2. Paul should have at least one thing on each aisle that he directly selects, and two or three he is handed to put in the cart.
3. Paul should not have to ask for help unless something unexpected occurs (he drops something on the floor instead of in the cart).

When Paul and his mom get to the checkout line, she positions the cart so that Paul can reach the items in the baby seat part of the cart and hand them to her to put on the counter. Paul's mom usually pays for the groceries with a check while Paul holds the two-wheel cart for the person who is bagging their groceries.

Paul's teacher could arrive at the same approach to teaching grocery shopping if she had begun with the strategies already discussed. Had she completed some kind of activity-based, family-referenced assessment, she would have learned that Paul and his mom live close to a large grocery store and shop together most weeks. Careful attention to the information about Paul's motor, visual, and communication skills might have encouraged the teacher to target driving safely in the store and maximizing opportunities to practice reach/grasp/hold/release with his one "good" hand and arm. If these skills begin to improve or change, there are a variety of ways that Paul's participation might be expanded either within the context of grocery shopping or in other kinds of shopping.

Avoiding missed participation simply requires that teachers think through the following questions:

1. Is this student likely to have a person present for this activity either because of disabilities that cannot be remediated or accommodated, or because of some life-style preference?
2. What abilities can this student practice in each component of this activity?
3. How can this practice be maximized through all activity components?
4. If we maximize practice in this way, what skills might be developed that could expand this student's participation?
5. How can we maximize image, helping the student to appear, and perhaps feel, less dependent and more competent?
6. How can we expand this student's cooperative and supportive relationships with others in this, and similar, settings and activities?

Concluding Remarks

One of the lessons of the last 15 years seems to be that there are rarely single correct approaches, always correct strategies, or even useful ideas that can endure both the passage of time and the challenges posed by students with severe disabilities. It is for this reason that we have revisited the concept of partial participation 5 years after it was first advanced. Our analysis described four ways we think the notion has been misunderstood and misused, and some of the reasons this occurred. In fact, we argue that it is the very complexity of students' impairments that is the greatest source of these misunderstandings. Until we better understand the nature and meaning of teaching and learning, of inclusion and contribution for such very complicated students, we expect that these and other errors of practice will continue to occur. Nevertheless, we identify and describe strategies for responding to these error patterns that might support teachers and families as we all continue to discover the meaning of effective educational programming for these most vulnerable of our students.

References

Baldwin, V. I. (1976). Curriculum concerns. In M. A. Thomas (Ed.), *Hey, don't forget about me!* (pp. 64–73). Reston, VA: Council for Exceptional Children.

Barrett, B. (1979). Communitization and the measured message of normal behavior. In R. York & E. Edgar (Eds.), *Teaching the severely handicapped* (Vol. IV, pp. 301–318). Columbus, OH: Special Press.

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptions in education programs for severely handicapped students. *The Journal of The Association for Persons with Severe Handicaps*, 7(2), 17–27.

Baumgart, D., Johnson, J., & Helmstetter, E. (1990). *Augmentative and alternative communication systems for persons with moderate and severe disabilities*. Baltimore: Paul Brookes Publishing Company.

Belmore, K., & Brown, L. (1978). A job skill inventory strategy designed for severely handicapped potential workers. In N. Haring & D. Bricker (Eds.) *Teaching the severely handicapped*. Vol. III (pp. 223–262). Columbus, OH: Special Press.

Brown, F., Helmstetter, E., & Guess, D. (1986). *Current best practices with students with profound disability: Are there any?* Unpublished manuscript, University Center at Binghamton, Binghamton, NY.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979a). A strategy for developing chronological age-appropriate and functional curricular content for severely handicapped adolescents and young adults. *Journal of Special Education, 13*, 81–90.

Brown, L., Branston-McLean, M., Baumgart, D., Vincent, L., Falvey, M., & Schroder, J. (1979b). Using the characteristics of current and subsequent least restrictive environments in the development of content for severely handicapped students. *AAESPH Review, 4*, 407–424.

Brown, L., Falvey, M., Vincent, L., Kaye, N., Johnson, F., Ferrara-Parrish, P., & Gruenewald, L. (1980). Strategies for generating comprehensive, longitudinal, and chronological age-appropriate individualized education programs for ad-

BEST COPY AVAILABLE

[illegible] and [illegible] handicapped students. *Journal of Special Education, 14*, [illegible].

Brown, L., Nietupski, J., & Hamre-Nietupski, S. (1976). Criterion of ultimate functioning. In M. A. Thomas (Ed.), *Hey don't forget about me* (pp. 2–15). Reston, VA: Council for Exceptional Children.

Cohen, M., Gross, P., & Haring, N. G. (1976). Developmental pinpoints. In N. Haring & L. Brown (Eds.), *Teaching the severely handicapped* (Vol. 1, pp. 35–110). New York: Grune & Stratton.

Downing, J. (1988). Active versus passive programming: A critique of IEP objectives for students with the most severe disabilities. *The Journal of The Association for Persons with Severe Handicaps, 13*, 197–201.

Falvey, M. A. (1989). *Community-based curriculum: Instructional strategies for students with severe handicaps* (2nd Ed.). Baltimore: Paul H. Brookes.

Falvey, M., Brown, L., Lyon, S., Baumgart, D., & Schroeder, J. (1978). Strategies for using cues and correction procedures. In W. Sailor, B. Wilcox, & L. Brown (Eds.), *Methods of instruction for severely handicapped students* (pp. 109–135). Baltimore: Paul H. Brookes Publishing Company.

Ferguson, D. L. (in press). Teacher work groups: Getting a little help from your friends. *Teaching Exceptional Children.*

Ferguson, D. L., Flannery, K. B., & Parker, R. (1988). *The elementary/secondary system: Supportive education for students with severe handicaps. Module 6a: Program and teacher development system.* Eugene, OR: Specialized Training Program, University of Oregon.

Ferguson, D. L., & Jeanchild, L. (1992). It's not a matter of method: Thinking about how to implement curricular decisions. In S. Stainback & W. Stainback (Eds.), *Adapting the regular class curriculum: Enhancing student success in inclusive classrooms* (pp. 159–174). Baltimore: Paul H. Brookes.

Ferguson, D. L., & Juniper, L. (1990). *A data-based programming approach for students with the most severe disabilities: An applied case study report.* Eugene, OR: Specialized Training Program, University of Oregon (submitted).

Ferguson, D. L., & Parker, R. (1988). *The elementary/secondary system: Supportive education for students with severe handicaps. Module 3: The classroom management information system.* Eugene, OR: Specialized Training Program, University of Oregon.

Ferguson, D. L., & Wilcox, B. (1987). *The elementary/secondary system: Supportive education for students with severe handicaps. Module 1: The activity-based IEP.* Eugene, OR: Specialized Training Program, University of Oregon.

Ford, A., Brown, L., Pumpian, I., Baumgart, D., Nisbet, J., Schroeder, J., & Loomis, R. (1984). Strategies for developing individualized recreation and leisure programs for severely handicapped students. In N. Certo, N. Haring, & R. York (Eds.), *Public school integration of severely handicapped students* (pp. 245–276). Baltimore: Paul Brookes Publishing Company.

Ford, A., Schnorr, R., Meyer, L., Davern, L., Black, J., & Dempsey, P. (1989). *The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities.* Baltimore: Paul H. Brookes.

Fredericks, H. D., & Piazza-Templeman, T. (1990). A generic in-service training model. In A. Kaiser & C. M. McWhorter (Eds.), *Preparing personnel to work with persons with severe disabilities* (pp. [illegible]). Baltimore: Paul Brookes Publishing Company.

Goodlad, J. I. (1990). The occupation of teaching in schools. In J. I. Goodlad, R. Soder, & K. A. Sirotnik (Eds.), *The moral dimensions of teaching* (pp. 3–34). San Francisco: Jossey-Bass, Inc.

Guess, D., & Helmstetter, E. (1986). Skill cluster instruction and the individualized curriculum sequencing model. In R. H. Horner, L. H. Meyer, & H. D. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 221–248). Baltimore: Paul H. Brookes.

Guess, D., Mulligan-Ault, M., Roberts, S., Struth, J., Siegel-Causey, E., Thompson, B., Bronicki, G. J., & Guy, B. (1988). Implications of biobehavioral states for the education and treatment of students with the most profoundly handicapped conditions. *The Journal of The Association for Persons with Severe Handicaps, 13*, 163–174.

Guess, D., & Thompson, B. (1991). Preparation of personnel to educate students with severe and multiple disabilities: A time for change. In L. Meyer, C. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities* (pp. 391–398). Baltimore, MD: Paul H. Brookes.

Hamre-Nietupski, S., Nietupski, J., Bates, P., & Maurer, S. (1982). Implementing a community-based educational model for moderately/severely handicapped students: Common problems and suggested solutions. *The Journal of The Association for the Severely Handicapped, 7*(4), 38–43.

Haring, N., & Bricker, D. (1978). *Teaching the severely handicapped* (Vol. 3). Columbus, OH: Special Press.

Haring, N., & Brown, L. (1976). *Teaching the severely handicapped* (Vol. 1). New York: Grune & Stratton.

Helmstetter, E., Baumgart, D., Curry, C., Donaldson, B., Lynch, V., & Peck, C. (1987). *The Inland Northwest Consortium for severely handicapped/deaf-blind inservice training: Final report.* Pullman: Washington State University.

Meyer, L., & Janney, R. (1989). User-friendly measures of meaningful outcomes: Evaluating behavioral interventions. *The Journal of The Association for Persons with Severe Handicaps, 14*, 263–270.

Meyer, L. H. (1991). Advocacy, research and typical practices: A call for the reduction of discrepancies between what is and what ought to be and how to get there. In L. H. Meyer, C. A. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities* (pp. 629–649). Baltimore: Paul H. Brookes.

Sailor, W., Anderson, J., Halvorsen, A., Doering, K., Filler, J., & Goetz, L. (1989). *The comprehensive local school: Regular education for all children with disabilities.* Baltimore: Paul H. Brookes.

Shane, H. C. (1979). Approaches to communication training with the severely handicapped. In R. York & E. Edgar (Eds.), *Teaching the severely handicapped* (Vol. IV, pp. 155–179). Columbus, OH: Special Press.

Switzky, H., Rotatori, A., Miller, T., & Freagon, S. (1979). The developmental model and its implications for assessment and instruction for the severely/profoundly handicapped. *Mental Retardation, 17*, 167–170.

Received: January 29, 1991
Final Acceptance: May 13, 1991
Editor in Charge: Thomas G. Haring

BEST COPY AVAILABLE

Helmstetter, E. (1989). Curriculum for school-age students: The ecological model. In F. Brown & D. Lehr, *Persons with profound disabilities: Issues and practices.* (pp. 239-263). Baltimore: Paul H. Brookes. P.O. Box 10624 Baltimore, MD. 21285-0624

2.243

BEST COPY AVAILABLE

CURRICULUM FOR SCHOOL-AGE STUDENTS

The Ecological Model

Edwin Helmstetter

Instructional practices with persons with severe disabilities have shifted from a basic skills model to an ecological approach that emphasizes the preparation of students to function in domestic settings that are located in the community; in integrated competitive work and recreational/leisure environments; and in other generic service environments such as transportation systems, stores, and restaurants. Unfortunately, with only a few exceptions, this model has seen little use with those students with the most severe disabilities. Specifically, these students include those who have inconsistent or no motor movement, who appear to possess very low IQs (e.g., below 15), or who are referred to in such denigrative terms as "medically fragile" (Brown, Helmstetter, & Guess, 1986).

ECOLOGICAL MODEL

Although the ecological model is rarely used with students with the most severe disabilities, it is appropriate for this group of individuals. The ineffectiveness of basic skills training, limited exposure to normal experiencing and every individual's right to equality are three reasons why this is true.

Ineffective Basic Skills Training

Research and practice with students with the most severe disabilities has traditionally emphasized training on basic skills such as bearing weight, reaching, activating a microswitch connected to an attention-getting signal, visual attention, and head control. The rationale for this approach appears to be that basic [illegible] independence will [illegible] How

2.244

students to develop some skills in communication, self-help, and mobility, thereby reducing their dependence on others.

The outcomes of the basic skills approach with this group are similar to the results obtained when used with students with less severe disabilities. That is, upon graduation from high school, students are unprepared to participate in integrated work, domestic, recreational/leisure, and other community settings frequented by their peers. Furthermore, even if certain basic skills that are taught in the classroom are related to functioning in an integrated community setting, students typically do not generalize what they learn in the classroom to the functional contexts in which they must use the skills. This is true even when the classroom conditions simulate functional environments.

Finally, some individuals with the most severe disabilities fail to acquire certain skills when taught in classroom-based programs, even after years of instruction. Given the outcomes of the basic skills approach, educators are obligated to develop alternative instructional models for use with these students.

Limited Exposure to Normal Experiences

Many individuals with the most severe disabilities experience a very small number of normal and stimulating environments. Presumably, they are unaware of their surroundings and, therefore, unable to benefit from them. This disparaging attitude limits the expectations for such students and produces an inaccurate and incomplete information base for educational planning. The practice of limiting students' experiences to self-contained classrooms and other segregated settings because they are unable to profit from normalizing experiences is refutable. Consider the following actual case in which a student, presumably unaware of his environment, benefitted from more normalized conditions.

> Barry suffered brain damage in an accident at his home when he was 2 years of age. Between the ages of 4 and 7, he attended a class for students with severe disabilities that was located in a segregated, special school in a public school system. In terms of basic skills, Barry showed no visual response to light, and only an occasional startle to loud sounds. Physical movements consisted of occasional lip smacking, smiling, and leg jerks. However, these movements were inconsistent and were believed to be associated with seizure activity. He had contractures in his arms, wrists, hips, knees, and ankles. He ate small amounts of pureed food orally at school, but was tube-fed at home. Barry's educational program included, among numerous other objectives, the development of head control and visual attending; however, he made no progress on these objectives in more than 3 years of intensive training and instructional adaptations. At age 8, Barry's special education class moved to a public elementary school where he was in frequent contact with nondisabled peers during homeroom period, lunch, play periods, and in the special education classroom. With no additional training whatsoever, his head control improved fourfold—when his peers were nearby. While keeping his head up, he was consistently alert to the sound of his friends entering the room, and [illegible] follow their movement. His response to his new social en-

Barry's case is not unusual. There are many reports of students with the most severe disabilities who are "written off" as being unaware of the world that surrounds them. However, upon closer scrutiny, these students do, in fact, show awareness, as demonstrated by such behaviors as responding "better" for a particular person, or becoming unusually passive when presented with unfavorable activities.

In summary, professionals often underestimate the potential of students with the most severe disabilities to relate to their environments. These limited expectations interfere with the learning and other opportunities that are made available to students just as limited expectations continue to hamper the progress of persons who are less severely disabled.

Equal Rights

Persons with the most severe disabilities have as much right as any other citizen to be a part of the mainstream society. This right is abrogated by segregation in self-contained classrooms, educational programs that limit students' experiences with peers, and provincial schooling that fails to prepare them for adult life in the community.

The remainder of this chapter describes the ecological model that is used with persons with less severe disabilities, and illustrates how the model can be used with individuals with the most severely handicapping conditions. Although the ecological model emphasizes community settings where work, domestic, recreational/leisure, and other activities occur, it is important to remember that the school is also part of the community, and that educators must advocate for integrated opportunities at school, as well as in the community. For example, students with the most severe disabilities should arrive at and depart from school with their friends. They should be in homerooms with other students from their local neighborhoods and with whom they will progress through the school years. They should participate in whatever way that they are able in homeroom functions and in other selected school activities. In general, students with the most severe disabilities should be part of everything that is "school" for nondisabled students (e.g., fundraising events, parent-teacher conferences, field trips, lunch in the cafeteria, assemblies, pep rallies).

Detailed descriptions of the ecological model are presented by Brown, Branston et al. (1979); Brown, Branston-McLean et al. (1979); Brown et al. (1980); Brown, Shiraga, York, Zanella, and Rogan (1984a,b); Falvey (1986), Ford et al. (1984); Nietupski and Hamre-Nietupski (1987); and Wehman, Renzaglia, and Bates (1985). The basic steps that need to be followed when implementing the ecological model are:

1. Identify the integrated settings in the community in each of the following domains: domestic (i.e., residential living), work, recreational/leisure,

2.245

and general community use areas (e.g., stores, restaurants, transportation systems, healthcare services).

2. Select specific current and future least restrictive environments in which a student might participate (e.g., corner market, movie theater).
3. Conduct ecological inventories of the current and future environments for the purpose of delineating their subenvironments (e.g., the kitchen is a subenvironment of the home), and for identifying the activities that typically occur in the subenvironments (e.g., washing dishes occurs in the kitchen subenvironment).
4. Establish priorities among the activities and select the highest ranking ones for instruction. The activities selected will constitute the goals of the student's individualized education program (IEP).
5. List the sequence of skills for each activity that was selected that nondisabled persons typically use in order to complete the activity.
6. Conduct a discrepancy analysis for each activity in order to identify how the individual's present skills compare to the skills that nondisabled persons use in completing the activity.
7. Develop individualized adaptations for those skills that the student lacks and is unlikely to learn quickly.
8. For each activity, develop an IEP objective that takes into consideration the results of the discrepancy analysis and the individualized adaptations.
9. Address implementation issues such as scheduling, staffing, transportation, and locating monetary resources.

The remainder of this chapter briefly describes each of the above steps and illustrates how the process might be extended for use with students with the most severe disabilities. The following points are stressed when the ecological model is implemented with persons who are the most severely disabled:

1. There is greater emphasis on partial participation in activities (Baumgart et al., 1982) than on no participation at all. For example, a student who is unable to independently use a vending machine to purchase a snack can partially participate by pushing the selection button after a companion deposits money in the machine. Furthermore, partial participation is interpreted to mean not only active motor involvement in an activity (e.g., pushing a vending machine button, signing a prewritten check with a name stamp), but also relatively passive behaviors that enable the individual to obtain information about the environment (e.g., visual or auditory attending, tolerating noisy or novel settings).
2. The use of adaptations is emphasized (Step 7 of basic steps from the previous section). Adaptations make it easier for students to fully or partially participate in activities, and reduce the need for extensive skill training. For example, for a student with poor motor control, the buttons on a remote change button, and the device fastened to a surface. These adaptations would eliminate the need for lengthy training on the motor skills needed to hold the remote control and to touch only one button at a time. Furthermore, it would provide the student with immediate control over one aspect of his or her environment.
3. More attention is given to how students respond to settings and activities. This information is then used to identify student preferences. A student's response might consist of minute responses that previously may have gone unnoticed (e.g., change in muscle tone, averting the eyes), or were observed but regarded as noncommunicative (e.g., tantrums, stereotyped behavior) (See Chapter 7, this volume, for a detailed discussion of identifying communicative responses). Information on the student's preferences with regard to settings and activities should be considered when establishing priorities for selecting various activities for instruction. It is also useful information for parents and residential staff who can then provide the individual with at least access, if not training, to his or her preferred settings and activities. It is recommended that this important process of identifying student responses become a new step in the ecological model (see previous section of this chapter), inserted between the ecological inventory (Step 3) and establishing priorities (Step 4).

Underpinning the first and second adaptations that were just described (i.e., partial participation and the use of technology) is the assumption that partial participation, regardless of its amount, is a valid educational goal. Underpinning the third adaptation (i.e., assessment of student preference for settings and activities) is the assumption that improving one's quality of life is a valid educational outcome, and that quality of life is improved when an individual gains access to situations that he or she prefers, even if participation in these situations is extremely limited.

Identifying Settings in the Community

The first step of the ecological model is to identify the integrated settings that are available in the community. Table 10.1 lists examples of the types of environments that exist in many communities. Resources to identify specific community settings (e.g., French's Cafe, Acme Movie Theater, Supported Living Alternatives) include local newspapers; telephone books; entertainment guides; parent or professional organizations; publications of the state Developmental Disabilities Planning Council; the Chamber of Commerce business directories; the United Way's directory of funded agencies; and directories compiled by state vocational, educational, health, and social service agencies. In addition, a drive or walk through the community is a very useful way to identify businesses, industries, recreational settings, and other community environments in which students might participate.

2.246

Table 10.1. Examples of types of environments

Domestic
Natural homes
Adoptive homes
Trained foster families with no other disabled persons
Shared apartments or homes with nondisabled adults
Supervised apartments or homes with 1–2 disabled persons
Group homes with five or fewer persons

Work
Stores: grocery, clothing, general merchandise, sports, music, hardware, pharmaceutical, pet
Industries
Libraries
Courthouses
Employment agency buildings
Public health buildings
Mental health buildings
United Way offices
American Red Cross facilities
Service organization facilities (e.g., Lions, Rotary Club)
Parks and Recreation facilities
Fire and police departments
Universities and colleges
Hospitals
Churches and synagogues
Laundromats
Housekeeping services

General community environments
Transportation systems (e.g., bus, subway, taxi)
Intersections (e.g., controlled, uncontrolled)
Restaurants (e.g., fast food, sit down/order, cafeteria)
Grocery stores (e.g., supermarkets, small convenience stores)
Merchandise stores (e.g., clothing, general merchandise, sports, hardware, pet, pharmaceutical)
Service locations (e.g., doctor, dentist, hairstylist, post office, bank)

Community recreational/leisure
Arcades
Nature centers and trails
Arts and crafts classes
Libraries
Cultural centers
Shopping centers
Parks
Movie theaters
Bowling alleys
Fishing ponds
Boating areas
Horseback riding stables
Beaches
Swimming pools
Skating rinks
Spectator sports arenas

Selecting Specific Current and Future Environments

For 5–10-year-olds, more emphasis is placed on current domestic, recreational/leisure, and community use environments and activities, as well as on opportunities for students to make friends at school and in their home communities. As the student approaches 10 years of age, more and more of what is needed in the current environments should overlap with what will be needed in future environments as well.

For 11–21-year-olds, the major emphasis is on what is needed for postschool domestic, recreational/leisure, work, and community use settings, as well as on opportunities to form friendships at school that will carry over into the student's life as an adult.

When selecting an appropriate, specific current or future environment for an individual, the interventionist must take into account that person's domestic, recreational/leisure, work, and general community environments.

[illegible] ***Environment*** Least restrictive living situations for

BEST COPY AVAILABLE

in which the parents are trained and have few, if any, other disabled foster children. Unfortunately, many 5–10-year-old children with the most severe disabilities reside away from their home communities, in institutions or other congregate living arrangements. These congregate care programs are inappropriate targets as current environments. Instead, the teacher, social worker, or case manager should identify the least restrictive residential options in the student's home community as the current placement to be inventoried, and advocate for the individual who is most severely disabled to move to such homes. The preferred residential options are the natural home or an adoptive home. For persons who are 11–21 years old, the preferred future living environments are shared apartments or homes with nondisabled persons, supervised apartments, or homes with five or fewer disabled persons.

Recreational/Leisure Environments Recreational/leisure settings exist at home, at school, and in the community. Recreational/leisure environments for 5–10-year-old children are age-appropriate settings in the current home and school, as well as community recreational/leisure settings currently frequented by the students' families. For the 11–21 age group, emphasis is placed upon the recreational/leisure subenvironments found in those individuals' future residential settings, and the environments in his or her community. Also emphasized are the recreational/leisure settings at school that maximize social integration and the development of friendships that might last into adulthood.

Work Environments Future work settings are referenced beginning at age 11 and include: 1) actual community competitive employment sites; and 2) other work situations, such as school jobs and community volunteer work, where students can learn general work skills (e.g., travel using public transportation, maintaining balance while seated in a car enroute to work), and can obtain extra practice on skills required in competitive employment settings (e.g., moving a lever to dump items during a packaging activity) (cf. Chapter 11, this volume).

General Community Environments General community environments for 5- to 10-year-old children should be those settings that the individual can visit from his or her current living environment. For the 11–21 age group, community environments should include those that will likely be visited from the future domestic setting.

Identifying Subenvironments and Corresponding Activities

After the specific current and future environments are identified for a student, the settings are visited, and the subenvironments are delineated. For example, the current recreational/leisure environments that a fictitious student uses or might use would be the Cinerama and Twilight movie theaters, and Eastside park. Future leisure environments might be the Cinerama and Twilight movie [illegible] YMCA [illegible] and Metro Public Library [illegible]re work environments for this individual could include the Metro Public Library and the Memorial Hospital. Each of these environments would be visited in order to identify their subenvironments. Examples of subenvironments of the Cinerama theater are the parking lot, entrance, ticket booth, refreshment area, restroom, and seating area. Subenvironments of the library are the entrance, reference desk, checkout desk, work room, reading area, book shelf area, and current periodicals room.

In addition to listing the subenvironments of each setting, the activities that typically occur in each subenvironment are also delineated. One approach for generating the list of activities is to observe nondisabled persons, and to note the activities in which they typically participate. For example, possible activities that may be conducted in the parking lot subenvironment of the library are entering and exiting an automobile, using sidewalks and crosswalks, locating the library entrance, and placing books in the overnight deposit box.

An activity should not be excluded on the assumption that a student is too disabled to participate in it. For example, in order to return a library book, an individual need not be able to accomplish all of the activities in which his or her nondisabled peer participates (e.g., exiting a car, traveling to the entrance of the library while carrying a book, and placing the book in the deposit box). Instead, the individual can partially participate by holding the book while being taken in a wheelchair to the deposit box, or by indicating the book that he or she wants to return by looking at one of several books held up by a companion.

Further examples of ways in which a student with the most severe disabilities can partially participate in common activities are shown in the following tables. Table 10.2 contains examples of activities (e.g., toileting) that typically occur in some subenvironments (e.g., bathroom) of a domestic setting. The parenthetic information for each activity illustrates how an individual with the most severe disabilities might partially participate if he or she was unable to acquire all of the skills that comprise the activity. For example, the grooming activity of brushing one's hair typically occurs in the bathroom subenvironment of the home. An individual with the most severe disabilities could partially participate in brushing hair by holding his or her head motionless and by not resisting having the hair brushed (see Table 10.2). Other examples are relaxing one's jaw in order to partially participate in tooth-brushing, and learning to tolerate water in order to participate in bathing. Such partial participation is not unlike present instruction in classes for students with the most severe disabilities. The difference here is that learning is validated against what is needed in real-life settings, and instruction occurs in the natural settings.

Table 10.3 contains examples of recreational/leisure activites that might occur in the subenvironments of the home, in community settings, and at school. Ways in which persons with the most severe disabilities might partially participate in these activities is once again illustrated by the parenthetic infor- [illegible] Table 10.3

2.247

Table 10.2. Examples of activities in domestic subenvironments

Bathroom

Toileting (e.g., indicate need by vocalizing or touching self, maintain balance on toilet)
Brush hair (e.g., hold head motionless while hair is brushed, tolerating having hair brushed)
Brush teeth (e.g., relax jaw while teeth are brushed)
Bathing (e.g., increase tolerance of water or of hair blower, bear weight during dressing, turn water on or off)
Clean mirror or other surface (e.g., turn water on and off, pour soap into water, wipe mirror or surface)
Pick up clothing (e.g., open or close hamper lid)

Kitchen or dining room

Eat (e.g., assist with holding food, cup, utensil, or napkin; tolerate different textures of foods; select food or drink by turning head toward items offered)
Wash dishes (e.g., push food off plates, turn food disposal on or off, push tray into dishwasher, turn on dishwasher)
Put tableware away (e.g., open or close cabinet doors and drawers, push tableware into sorted piles)
Prepare meal (e.g., empty contents of packets; activate blender, food processor, can opener, or timer; turn stove or oven on or off)

Living room or recreational area

Recreational/leisure activities (see Table 3)

Bedroom

Dress (e.g., assist with dressing by lifting head, relaxing arm, bearing weight, flexing ankle, opening or closing drawer, removing items from or placing items in drawer)
Use alarm clock (e.g., awaken to alarm, push alarm button)
Make bed (e.g., pull sheets or bedspread to top of bed)
Straighten room (e.g., open or close hamper lid or dresser drawer, close closet door)

Utility area or work room

Wash clothes (e.g., push clothes into sorted piles, place clothing in or remove from washer or dryer, turn appliances on or off)
Care for tools (e.g., put tools away, wipe work surfaces)

General housekeeping

Clean surfaces (e.g., wipe surface, pour soap into water, turn water on or off)
Empty garbage (e.g., turn trash compactor on or off, push trash into container)
Vacuum (e.g., turn vacuum cleaner on or off)
Care for plants (e.g., tip watering container to water plants)

Outdoors

Plant flowers (e.g., drop seed or plants into holes)
Care for plants (e.g., pull weeds, water plants, snip flowers)
Rake leaves (e.g., turn leaf blower on or off)

the ticket collector, increasing the amount of time a person is able to sit at the event, or increasing the individual's visual or auditory awareness of environmental events. Tables 10.4 and 10.5 are similarly structured, but with reference to the work and general community use domains, respectively.

As discussed earlier, active partial participation in activities (e.g., dropping a book in a library's deposit box) need not be the only goal; the quality of an individual's life can be improved by participating at whatever level is possible, providing that he or she is willing to participate. This means that for some students it may be appropriate to emphasize visual or auditory attending and tracking behaviors so they can gain more information from the activity and benefit more from being in the settings. For example, a student could learn to visu- [illegible]

2.248

Table 10.3. Examples of recreational and leisure activities for home, community, and school

Home: Current and future environments

Living room, den, recreation room, bedroom

Play board and table games, such as checkers and foosball (e.g., watch game, move game pieces, move handle of foosball)
Play cards (e.g., watch card game, activate electronic card shuffler, look at cards and signal if a card matches another)
Play computer game (e.g., signal choice of games, activate controls for computer games, watch as sibling plays game)
Read books and magazines (e.g., look at book or magazine, indicate choice of books by looking, activate electronic page turner, activate tape recorder for recorded book, listen to audiocassette of book)
Photography (e.g., operate switch activated shutter, look through camera, look at photograph album, activate electronic page turner with photograph album)
Use home entertainment equipment (e.g., select by smile or by looking at a record, audiocassette, or videocassette; activate controls for on or off, loudness, channel selection, forward or reverse; watch or listen to television, record player, radio, or tape player)
Play a musical instrument (e.g., use keyboard with hands, head, or foot; blow a wind instrument)

Kitchen

Cook (e.g., watch cooking activity; activate blender, food processor, popcorn popper, can opener, timer)

Outside

Care for pet (e.g., accompany animal on walks, pet animal, brush animal, watch animal, move lever to release animal food into dish or tank)
Care for plants (e.g., water or mist plant, turn plant to face sunlight)
Gardening (e.g., pull weeds, drop seeds into holes, water plants with can or hose)

Swimming pool and side of pool

Swim (e.g., tolerate water, remain on or in a flotation device, splash water, bear weight, maintain balance while sitting on side of pool)

Yard

Use playground equipment (e.g., watch other children play, remain in swing, maintain an erect posture while on slide)

Community: Current and future environments

Arcade at shopping center: Game area

Use computer and arcade games (e.g., watch as peers play, move controls)

Library: Magazine and tape browsing area

Read magazines or listen to tapes (see Home section of this table for examples of partial participation with books or tape equipment)

Park: Pathways and picnic areas

Cycling (e.g., tolerate riding in child's seat, maintain balance)
Take nature walk (e.g., accompany peer or adult on walks, look through binoculars or telescope)
Picnic (e.g., assist with eating, choose food or drink)

Theater or playhouse: Entrance, audience, refreshment, and restroom areas

Attend cultural events (e.g., watch event, hand ticket to usher, indicate choice of events, select refreshments, use [illegible]

Shopping center or shopping distr

Watch people, window shop

Table 10.3. *(continued)*

Swimming pool: Pool, locker room, and refreshment areas

Swim (e.g., assist with showering, assist with dressing, tolerate water, use flotation device, bear weight, maintain balance)
Purchase refreshments (e.g., select refreshment by looking at picture, hand money to cashier)

Bowling alley: Bowling lanes, restroom, refreshment, and game entertainment areas

Bowl (e.g., watch bowling, push ball off bowling ramp)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)
Play video games (e.g., watch peers play, place coin in machine, move video game controls)

Skating rink: Rink, restroom, and refreshment areas

Skate (e.g., watch skaters, support weight on skates)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)

Pond or lake: Shore area

Fish (e.g., hold fishing pole, pull in fish, open or close fishing tackle or bait box)

Sport facility: Entrance, audience, restroom, and refreshment areas

Enter facility (e.g., hand ticket to usher)
Watch spectator sports (e.g., increase the time that one can watch an event)
Purchase refreshment (e.g., select refreshment by looking at picture, hand money to cashier)
Use restroom (e.g., indicate need to use restroom, assist with dressing, bear weight, maintain balance on toilet)

Stable: Barn and trail areas

Horseback riding (e.g., maintain balance on horse)
Animal care (e.g., dump water into trough, brush horse)

School: Current environment

See Home and Community sections of this table for examples of ways in which students can participate in activities in each of the following subenvironments:

School library
Kitchen or home economics area
Photography laboratory
Greenhouse
Theater
Sport facility
Playground

ion, or to listen to a bowling ball advancing toward its target. For other students, being able to sit for longer time periods at a basketball game or tolerating the noise at a hockey match may be important.

Assessing Student Responses to Environments and Activities

Emphasis up to this point has been on the activities that the student should learn in order to participate in current and future environments. A further considera [illegible] and activ [illegible] because

BEST COPY AVAILABLE

Table 10.4. Examples of activities in work subenvironments

Stores (e.g., grocery, general, clothing, sports, music, hardware, pharmacy, pet)

Sales and stockroom areas

- Stock shelves (e.g., push on stamp to price cans, boxes; push items into alignment on shelves)
- Bag items (e.g., move lever to dump nuts, beans, pills, and other items for bagging; slide items to companion who bags them)

Display cases, restrooms, and break areas

- Clean surfaces (e.g., wipe windows, mirrors, or counters; add soap to water, turn water on or off)

Break and lunch areas

- Eat snack or lunch (e.g., select refreshment in vending machine, place money in vending machine, assist with eating)
- Look at magazine (e.g., choose magazine, use page turner)
- Listen to tape (e.g., choose tape, tolerate headphones, use microswitch to turn on or off)

General work skills

- Clock in or out (e.g., remove card from holder, hand card to coworker who clocks in the disabled person)
- Use restroom (e.g., assist with toileting, grooming, dressing)

Industries

Work area

- Packaging (e.g., move lever to dump contents for packaging, activate switch to seal package)

Break area

- (see the Stores section for examples)

General work skills

- (see the Stores section for examples)

Offices

(Examples of community sites with offices: stores, industries, libraries, courthouses, employment services, social services, public health, legal services, mental health, Council on Aging, universities and colleges, fire department, religious organizations, United Way, American Red Cross, Lions Club, Rotary Club)

Storage and work areas

- Stock shelves with paper, pencils, paper clips, and other office material (e.g., push items into alignment on shelves)
- Photocopy (e.g., push copier button)
- Shred paper (e.g., release paper into shredder)
- Staple (e.g., move papers on paper holder to activate electronic stapler)
- Collate (e.g., activate electronic collator)
- Sharpen pencils (e.g., activate electronic pencil sharpener)
- Date documents received (e.g., push stamp to date materials)

Libraries

Check out desk

- Process returned materials (e.g., push stamp to cancel books, push books onto cart for reshelving)

Book and magazine shelves

- Reshelve materials (e.g., push materials to align on shelves, hand items to coworker who places them on shelves)
- [illegible] low shelves)

BEST COPY AVAILABLE

Table 10.4. *(continued)*

Restaurants

(Types of restaurants: fast food, cafeteria, sit down/order)

Eating area

- Fill sugar or creamer bowls (e.g., wipe bowls, slide sugar or creamer packets into bowls, slide bowl into position on table, hand materials to coworker who fills bowls)
- Clean (e.g., wipe showcase or table tops, pour soap into water, turn water on or off)

Kitchen

- Fold cloth napkins (e.g., slide napkin to coworker, stack napkins on tray)
- Wash dishes (e.g., pick silverware off of plates, turn dishwasher on)
- Stock shelves (e.g., push items to straighten on shelves)
- Clean (e.g., wipe shelves and counters, pur soap into water, turn water on or off)

Motels/hotels

Rooms

- Clean bathrooms (e.g., wipe mirror or sink, take supplies to coworker)
- Make beds (e.g., pull sheet or bedspread to top of bed, straighten pillows

Animal shelters

Animal quarters

- Feed animals (e.g., dump food into bowl or tank)

persons with the most severe disabilities have little control over their lives, it is imperative that educators closely observe individuals for behaviors that indicate preference, dislike, or indifference toward environments or activities.

Assessing reactions to environments and activities is a simple task when students make such overt and typical responses as smiling, frowning, crying, increasing attention or active involvement in an activity, and increasing motor movement in anticipation of an activity. However, for many students, the responses may be less obvious. For these students, teachers and parents must be keen observers and interpreters of student behavior. For example, a student might indicate pleasure or displeasure for a particular activity or person by changing his or her body tone, through subtle changes in the level and type of motor activity, or by changes in vocalizations. More specific examples of expressions of displeasure include averting the eyes or head, tightening the lips, becoming increasingly passive, refusing to maintain the head in an erect position, deep sighing, or maintaining an "empty" or "looking through you" gaze. Other examples include refusing to open the mouth for feeding, increasing the frequency of tongue thrusts when disliked foods are introduced, or refusing to free the grip on a wheelchair armrest when being transferred to a low preference activity. Examples of specific behaviors in the presence of preferred events include attempting to make visual eye contact with persons or objects, leaning forward in anticipation, expressing positive affect or vocalizations, and struggling to participate as evidenced by straining to look, touch, or cooperate.

In order for educators to recognize these behaviors, they must first regard all student behavior as potentially communicative. In addition, they must re- [illegible] settings in order to accurately inter-

Table 10.5. Examples of activities in community use subenvironments

Transportation (e.g., bus, train, taxi)
Ticket booth/machine
- Purchase ticket (e.g., hand money to attendant or insert coin)

Turnstile/vehicle entrance
- Pay (e.g., hand ticket or money, place money in machine)
- Board/disembark (e.g., assist by bearing weight or stepping)

Passenger area
- Find seat (e.g., look toward empty or preferred seat)
- Ride (e.g., maintain balance, hold on, look at scenery)

Intersections (e.g., controlled, uncontrolled)
Crosswalk
- Obey signal (e.g., push walk button, attend to walk light)
- Walk (e.g., assist with walking or moving wheelchair, assist with stepping up or down)

Restaurants (e.g., fast food, cafeteria, sit down/order)
Table or counter
- Order (e.g., look at picture held by peer, hand picture of choice to waiter)
- Eat (e.g., assist with eating)

Restroom
- Toileting (e.g., assist with dressing, maintain balance on toilet)
- Wash (e.g., turn water on or off, push dryer button)

Cashier
- Pay (e.g., hand money, push on name stamp for check signature)

Grocery stores (e.g., small convenience, supermarket)
Aisles
- Shop (e.g., look at choice, drop item into cart, push cart)

Counter
- Purchase (e.g., place items on counter; hand money, credit card, or purchase order to clerk)

Merchandise stores (e.g., clothing, general, sports, music, hardware, pharmacy, pet)
- (see Grocery stores section for examples)

Services (e.g., doctor, dentist, hairstylist, post office, bank)
Waiting room
- Entertain self (e.g., choose magazine, turn pages, tolerate tape recorder headphones)

Lobby
- Wait in line (e.g., bear weight)

Counter
- Pay (e.g., hand money or credit card to pay, push on name stamp for signature)

pret the function of the behaviors displayed. In some cases, such behaviors may have been extinguished in the classroom because they were previously regarded as meaningless and ignored by others. Therefore, repeated experiences in new environments or with new activities may be necessary in order for the behaviors to emerge again.

Observations of students could be conducted by including them in visits to inventory the subenvironments and activities of various environments. Another context for observation is during the discrepancy analysis stage (discussed later in this chapter) of the ecological model at which point the student's skills in performing activities are assessed. A third option is to have parents or residential staff observe the student during visits to settings identified as current or future environments.

Since many persons who have the most severe disabilities have been exposed to a limited number of environments, it is appropriate to also provide them with access to situations that have not been targeted as current and future environments, and to gauge their reactions to the experiences in these settings. If preference is shown for a particular setting, then that locale should be inventoried for activities in which the student can participate.

Finally, information about a student's responses to environments and activities is important not only for educators, but also for parents, roommates, and residential staff. Such information can be used by these individuals to improve the quality of a student's life through access to places and activities that the student enjoys.

Establishing Priorities and Selecting Activities

One approach to selecting an activity from the large number of potential ones that could be taught is to establish criteria and a rating system. Figure 10.1 provides several possible criteria and a sample rating system for setting priorities among the activities. After rating each activity using the 20 criteria, a total sum is computed for each. Activities with the highest sums are given the highest priority for instruction. This procedure gives equal weight to each criterion. An alternative is to differentially weight the criteria so that items regarded by parents and professionals as more important are assigned greater value. For example, the least important items would be given a weight of one, the items with the next higher level of importance would be weighted with a two, and so on. Then, the rating (e.g., a rating of "somewhat agree with the statement" is worth 2 points) for an item would be multiplied by the weight assigned to that item to obtain a weighted score.

Listing Skills that Comprise Each Activity

A task analysis process is used to identify the skills that comprise each of the activities for the student that are selected for instruction. A task analysis is completed by either observing someone who is performing an activity or by completing the activity him- or herself. In both cases, the steps (i.e., skills) needed to complete the activity are listed in the order in which they occur. As an example, a task analysis of checking out a book at the library would consist of the following:

1. Scan the library to find the librarian's desk.
2. Go to the librarian's desk.
3. Hand the book to the librarian.
4. Remove wallet or purse.
5. Remove library card.
6. Hand card to librarian.
7. Receive card from the librarian.

BEST COPY AVAILABLE

Criteria	Activity											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Can be used in current environments												
2. Can be used in future environments												
3. Can be used in four or more different environments												
4. Affords daily opportunities for interaction with nondisabled persons												
5. Increases student independence												
6. Helps maintain student in, or promotes movement to a least restrictive environment												
7. Is chronologically age-appropriate												
8. Student will acquire in 1 year the necessary skills to participate in the activity												
9. Parents rate as a high priority												
10. Promotes a positive view of the individual												
11. Meets a medical need												
12. Improves student's health or fitness												
13. If able, student would select												
14. Student shows positive response to activity												
15. Advocacy, training, and other support can be arranged so that student can participate in the activity in the absence of educational services												
16. Related service staff support selection of activity												
17. Transportation is no barrier												
18. Cost is no barrier												
19. Staffing is no barrier												
20. Environments are physically accessible												
TOTAL												

Figure 10.1. Twenty examples of criteria used for setting priorities (Rating of: 3 = strongly agree with statement, 2 = agree somewhat with statement, 1 = disagree somewhat with statement, 0 = disagree [illegible] (Adapted from Dardig, J.C., & Heward, W.L. [1981] A

8. Place card in wallet or purse.
9. Receive book from the librarian.

Conducting the Discrepancy Analysis

After the activities are task analyzed, the student's ability to perform each activity is assessed in the environments where the activities naturally occur. Discrepancies are noted between the skills used by a nondisabled person in carrying out an activity, and the student's skills. Table 10.6 (York & Rainforth, 1987) illustrates the discrepancy analysis process with a student who is very severely disabled. The example involves the recreational/leisure domain, the environment is the public library, and the subenvironment is the library's browsing area that contains magazines and tapes. A nondisabled person's behaviors in performing the activity are listed in the first column. Column two contains the results of assessing the student's status on each behavior comprising an activity, with notes on the assistance required in order for the student to perform each behavior.

Developing Individualized Adaptations

The next step in the ecological model is the development of adaptations. For example, the last column of Table 10.6 contains notations as to whether to teach (T) the student on the actual behavior, or whether it should be adapted (A) in some way. Adaptations are very important if students with the most severe disabilities are to participate in integrated settings. Baumgart et al. (1982) have identified five categories of adaptations.

The first type is the provision of personal assistance. In order for a student to participate in an activity, it may be necessary to have peer or adult assistance. Examples are physical assistance such as pushing a student's wheelchair, holding up pictues of menu items for an individual from which he or she can make a selection, or supporting a student's weight during a transfer from a wheelchair to a bench. A second form of personal assistance is a gestural or verbal aid such as a peer pointing the way to the playground or pointing to the controls of a computer game. If a student is unlikely to learn the behavior and personal assistance is available, then this adaptation may be appropriate. In Table 10.6, personal assistance is in the form of pushing the student to areas, positioning the tape recorder, holding objects up for selection, pointing to areas to which the student must go, and adjusting the volume of the tape recorder.

A second type of adaptation is the modification of the sequence of skills. For instance, a student who must be fully supported when boarding a bus and whose balance is poor, could board the bus, sit in the front seat, then hold the bus ticket out. This varies from the typical sequence of boarding, giving the ticket to the driver, and then finding a seat.

A third adaptation is the modificaton of rules. For example, if one non[illegible] typically completes an entire work task, then the rules might

BEST COPY AVAILABLE

2.251

2.252

Table 10.6. Example of a partial assessment conducted at a public library

Nondisabled person inventory	Student with disabilities inventory (assessment)[a]	Instructional solutions (teach directly or adapt)[b]
ACTIVITY: Choosing a tape		
Skills:		
Locate tape section.	– T pointed to audiovisual section, then to tapes.	I: S will look in direction of tape area once in visual field (T/peer push wheelchair)
Browse through tapes.	– T located age-appropriate tapes, then selected four.	A: S will look at tapes pulled from stack by T/peer.
Select one tape.	+ S looked at one tape after T presented four.	
ACTIVITY: Listening to tape		
Skills:		
Locate tape.	+ S scanned then located after T pointed to picture of recorder on communication board	
Position self.	– T wheeled and positioned S.	A: S will be pushed by T/peer to tape section.
Open tape player lid.	– S initiated move toward eject button; T relaxed S's arm then primed reach for and push button.	A: S will push on lever extended from eject button; T/peer positions tape recorder.
Insert tape.	– S pushed tape into place with back of wrist after T aligned tape in track.	A: S will push in tape after T/peer places recorder close to S's wrist and aligns tape.
Close lid.	– S initiated move toward lid; T relaxed S's arm then assisted reach down and push closed.	I: S will push lid closed with forearm after T/peer places recorder near forearm.
Put on headphones.	– T places earphones on S's head.	A: T/peer will perform.
Turn on tape.	– S was unable to reach and exert enough pressure; T turned on.	A: S will turn on tape with hand/head using microswitch.
Adjust volume.	– T moved volume dial; S frowned then smiled.	A: S will smile when appropriate volume dialed by T/peer.
ACTIVITY: Choosing a magazine		
Skills:		
Locate magazine section.	– T pointed to magazine section.	I: S will look in direction of magazines once in visual field (eventually S will choose between tapes and magazines)
Locate preferred magazines.	– T located age-appropriate and preferred content magazines.	I: S will scan magazine section with T/peer guide by pointing.
Select one magazine.	+ S looked at one magazine and smiled after T presented three.	
ACTIVITY: Browsing through magazine		
Skills:		
Locate an area to sit	– T pointed out several open spots then decided to go near window	I: S will choose where to sit by looking at one area (window or lounge) pointed out by T/peer
Position self.	– T wheeled and positioned S.	A: S will be positioned by T/peer (consider getting S out of chair to sit on carpet).
Hold magazine.	– T positioned and held magazine on wheelchair tray.	A: T places magazine in book holder adaptation
Read articles/look at pictures.	+ (S looked at pictures.)	
Turn pages.	– S initiated reaching to page but required T's assist to relax, reach, turn pages.	A: S will turn pages with hand/mouth using dowel rod with Plasti-Tac on end

---

[a] T = teacher, S = student. + indicates independent and acceptable performance; – indicates assistance was required to achieve acceptable performance.

[b] I = teach directly, A = adapt.

be altered to permit two persons, one with severe disabilities and the other who is nondisabled, to work together to complete the entire task. Similarly, a disabled employee might be allowed to complete only part of a task. For example,

BEST COPY AVAILABLE

2.253

washer and then turn it on, rather than completing the entire job that involves bussing tables, cleaning tableware, loading and unloading the dishwasher, and measuring the correct amount of soap.

A fourth adaptation is the modification of the social environment or the changing of attitudes that interfere with student involvement in activities. Thus, teachers, peers, and others who might be uncomfortable with persons with disabilities could be provided with information about disabling conditions. More importantly, they could learn ways to interact with persons who are disabled. For example, at school, classmates could learn to interpret the eye movements of the student with the disability to indicate his or her choice of areas to be taken to during recess. Similarly, the cashier at the grocery store might be taught to assist a student, who has difficulty releasing items, to loosen his or her grip on the money that is held out in payment for the purchases.

A fifth adaptation involves using special equipment to assist a student in completing an activity. Creative use of adaptations is necessary if persons with the most severe disabilities are to participate in domestic, recreational/leisure, work, and other community settings. In Table 10.6, adaptive equipment is in the form of a lever extended from the eject button of the tape recorder, a hand or head activated microswitch to turn on the recorder, and a dowel rod that is operated by the hand or mouth to turn pages in a magazine.

Numerous other adaptive devices are also available. For eating, there is an electric self-feeder that is controlled by a slight body movement. There are also sandwich holders, grips and splints to help an individual grasp utensils and cups, and no-tip drinking glasses.

Adaptive devices used for dressing include one-handed belts, large handled zippers, and buttoning aids. Examples of equipment to aid meal preparation are one-handed openers for plastic bags, jars, cans, and boxes; and grips to reduce the strength required for removing lids. For obtaining water from a faucet, there is a pressure switch attached to the facet that turns water on when a cup is held against it. Door opening is made easier with a foot activated opener or a door knob extension. Aids for hygiene include levers that assist an individual in flushing toilets and obtaining toothpaste from a tube, and extended or enlarged grips for brushes.

For recreational/leisure activities, available adaptive devices include switch activated page turners; microswitch controlled computer software; one-handed card shufflers; a fishing aid to support line casting by those with some shoulder and elbow movement; and specially designed grips for pool cues, table tennis paddles, and other recreational equipment.

Adaptive equipment has seen extensive use in work settings. Jigs that obviate the need for an individual to be able to count or to have sophisticated manual dexterity skills are common. York and Rainforth (1987) describe a stapling adaptation used in a community setting by a student with no purposeful sliding tray, containing papers that were inserted by another worker, into the mouth of an electric stapler.

In another example by York and Rainforth (1987), a student who lacked sufficient strength to stamp brochures at a travel agency was provided a hinged Plexiglas apparatus with adjustable positions for the stamp on the upper plate, and with space on the lower plate for the material to be stamped. A third example involved a student maintained in a reclined position in a wheelchair, who had limited movement of his upper extremities (York & Rainforth, 1987). This individual performed a collating activity in a community setting. The task was adapted by using a sticky, putty material on the tip of his hand splint, thereby enabling him to move one paper at a time from a pile to a device that was controlled by a microswitch activated by the worker's elbow. The device, when activated, collated the papers.

Developing Instructional Objectives

The results of a discrepancy analysis can be directly translated into instructional goals and objectives. The goal consists of the activity to be learned. The objective states the unacquired skills that will be taught, as well as any necessary adaptations. For example, using the discrepancy analysis and instructional solutions in Table 10.6, the goal and objectives for choosing and listening to a tape might consist of:

Goal: George will choose and listen to a musical tape at the public library.

Objective 1: When taken to the browsing area in the Metro Public Library, George will locate the tape section by looking in its direction for 3 seconds duration, on five of seven consecutive trips to the library.

Objective 2: In the browsing area at Metro Public Library, when a teacher or peer holds four tapes in front of him, George will choose one by looking at it for 3 seconds duration, or indicate disapproval of options by looking at his lap, for eight of ten consecutive opportunities.

Objective 3: In the browsing area at Metro Public Library, George will complete 80% of the following steps involved in listening to a tape, for 5 consecutive opportunities:

1. Push the tape recorder eject lever after the tape recorder is positioned in front of his hand on his wheelchair tray.
2. Push tape into recorder lid after tape is aligned by a teacher or peer.
3. Push lid closed after recorder is positioned in front of his arm.
4. Turn on the tape recorder using microswitch.

2.254

Addressing Implementation Issues

A number of issues concerning scheduling, staffing, transportation, and monetary resources may arise during the implementation stage. Some suggested solutions to these issues are shown in Table 10.7. These suggestions are taken from Baumgart and Van Walleghem (1986), Ford and Checkosky (1984), Hamre-Nietupski, Nietupski, Bates, and Mauer (1982), and Sailor et al. (1986). In regard to scheduling, Table 10.7 provides guidelines for the amount of time spent in various types of community environments versus classroom and other school settings (Ford & Checkosky, 1984; Sailor et al., 1986). Generally, time in the community increases as students become older. Time at school is dedicated to: 1) additional training on skills needed in community settings, 2) social integration with nondisabled peers, and 3) specialized therapies that cannot be trained within the context of community activities.

Staffing patterns for implementing the ecological model include utilizing a consultant, staggering implementation of the model across students, teaming less skilled students with higher skilled ones during community training, and arranging for support staff to train or consult in community settings (Baumgart & Van Walleghem, 1986). Other approaches include having support staff train groups of students at school in order to free other staff for community-based training, team teaching, using computers as a more efficient approach to administrative tasks, and utilizing volunteers (Baumgart & Van Walleghem, 1986).

Transportation is frequently a barrier to implementing the ecological model. Transportation demands can result from the model's emphasis on instruction in a variety of community settings. In addition, normalization principles would dictate against traveling in large groups and having a disproportionate number of persons with disabilities in the same place at the same time (e.g., one individual with a disability per setting would be optimal). Some possible solutions include having school buses take students to community sites the first thing in the morning, walking to sites, using public transportation, reimbursing staff and volunteers for use of personal vehicles, and using public school cars (Hamre-Nietupski et al., 1982; Sailor et al., 1986).

Another common issue concerns funding. Possible sources of funds include using classroom material funds for community training costs, having parents pay a nominal amount, conducting fund raising events, and having students shop for groceries for parents or staff (Hamre-Nietupski et al., 1982; Sailor et al., 1986).

SUMMARY

The ecological model for developing curriculum content describes and explains how the model can be extended to students with the most severe disabilities. [illegible] the most severe disabilities requires: 1) an

Table 10.7. Suggested solutions to implementation issues

Scheduling

—Proportion of time in different environments for various age groups

Environments	Age			
	6–9	9–12	12–16	16–21
Classroom	40%	25%	10%	
School	35	25	15	15%
Community	25	50	75	85

—Number of training opportunities in different domains for various age groups

Environments	Age				
	6–10	11–21	11–17	18–19	20–21
Community					
street crossing (times/wk)	2–3	5	—	—	—
transportation (times/wk)	2–3	5	—	—	—
store shopping (times/wk)	.5	1	—	—	—
restaurant use (times/wk)	2–3	1	—	—	—
Recreation and leisure (times/wk)	.5	1	—	—	—
Competitive employment (half days per week)	—	—	2–3	4–5	Full-time

—Classroom instruction should consist of extra training related to skills and activities needed for nonclassroom settings and specialized therapies that cannot be incorporated into school or community activities

—School settings should focus on social contact with peers and on involvement in typical age-appropriate school activities

Staffing

—Use a consultant to assist during the planning stage

—Stagger implementation where the number of students or amount of community-based training increases gradually

—Use heterogeneous groupings so that a student with the most severe disabilities accompanies a student with a lesser disability

—Restructure related services to permit support staff to train or consult in community environments

—Restructure related services so that support staff teach groups of students for longer periods of time at school, while other students are in the community

—Procure temporary paraprofessional staff

—Team teach, with one teacher instructing a large group while the other teacher conducts community-based training

—Make more efficient use of time by using computers to manage data and other administrative tasks

—Use volunteers, such as parents, college students, and senior citizens, and peer companions or tutors

—In terms of liability, staff and volunteers are usually covered if the school district carries insurance, if the community training is approved by a school official, and if the school district's policies regarding use of volunteers are followed

(continued)

BEST COPY AVAILABLE

Table 10.7. *(continued)*

Transportation
- —Public school vehicles
- —Have school bus take student to a community site first thing in the morning
- —Driver's education vehicles
- —Walk to sites
- —Volunteers' or parents' cars
- —Public transportation
- —Reimburse school staff for using their cars
- —University cars

—Whenever staff or volunteer cars are used, district policies must be followed in terms of minimal insurance coverage, written permission by a school official, and other district rules

Monetary resources
- —Use the money designated for classroom materials for community training costs
- —Pay restaurant meals by transferring money from the school lunch program
- —Have parents pay a nominal amount to help offset costs
- —Conduct fund raising events
- —Request funds from parent groups or student government
- —Establish a purchase order account between merchants and the school
- —Run a school soup and salad bar to raise money
- —Have students shop for groceries for parents or teachers
- —Use vocational education money

From Baumgart and Van Walleghem (1986), Ford and Checkosky (1984), Hamre-Nietupski, Nietupski, Bates, and Mauer (1982), and Sailor, Halvorsen, Anderson, Goetz, Gee, Doering, and Hunt (1986).

emphasis on the concept of partial participation and an interpretation of that concept that allows passive engagement in activities; 2) greater dependence on technological adaptations that permit an individual to participate in activities; and 3) assessing the communicative intent of students' behavior, including very subtle responses, and interpreting the meaning of those behaviors in regard to preferences for environments and activities.

REFERENCES

Baumgart, D., Brown, L., Pumpian, I., Nisbeth, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of The Association for the Severely Handicapped, 7*(2), 17–27.

Baumgart, D., & Van Walleghem, J. (1986). Staffing strategies for implementing community-based instruction. *The Journal of The Association for Persons with Severe Handicaps, 11*(2), 92–102.

Brown, F., Helmstetter, E., & Guess, D. (1986). *Current best practices with students with profound disabilities: Are there any?* Unpublished manuscript, The Institute of Professional Practice, Inc., New Haven.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979). A strategy for developing chronological age appropriate and functional curricular content for severely handicapped adolescents and young adults. *Education, 13*(1), 81–90.

strictive environments as factors in the development of curricular content for severely handicapped students. *AAESPH Review, 4*(4), 407–424.

Brown, L., Falvey, M., Vincent, L., Kaye, N., Johnson, F., Ferrara-Parrish, P., & Gruenewald, L. (1980). Strategies for generating comprehensive, longitudinal, and chronological age appropriate individualized education programs for adolescents and young adult severely handicapped students. *Journal of Special Education, 14*(2), 199–215.

Brown, L., Shiraga, B., York, J., Zanella, K., & Rogan, P. (1984a). Ecological inventory strategies for students with severe handicaps. In L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan, & R. Loomis (Eds.), *Educational programs for students with severe handicaps* (Vol. XIV, pp. 33–41). Madison, WI: Madison Metropolitan School District.

Brown, L., Shiraga, B., York, J., Zanella, K., & Rogan, P. (1984b). The discrepancy analysis technique in programs for students with severe handicaps. In L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan, & R. Loomis (Eds.), *Educational programs for students with severe handicaps* (Vol. XIV, pp. 43–47). Madison, WI: Madison Metropolitan School District.

Dardig, J. C., & Heward, W. L. (1981). A systematic procedure for prioritizing IEP goals. *The Directive Teacher, 3*, 6–7.

Falvey, M. A. (1986). *Community-based curriculum: Instructional strategies for students with severe handicaps.* Baltimore: Paul H. Brookes Publishing Co.

Ford, A., Brown, L., Pumpian, I., Baumgart, D., Nisbet, J., Schroeder, J., & Loomis, R. (1984). Strategies for developing individualized recreation and leisure programs for severely handicapped students. In N. Certo, N. Haring, & R. York (Eds.), *Public school integration of severely handicapped students: Rational issues and progressive alternatives* (pp. 221–244). Baltimore: Paul H. Brookes Publishing Co.

Ford, A., & Checkosky, D. (1984). *A community based curriculum guide for moderately and severely handicapped students.* Syracuse: Syracuse City School District.

Hamre-Nietupski, S., Nietupski, J., Bates, P., & Mauer, S. (1982). Implementing a community-based educational model for moderately/severely handicapped students. Common problems and suggested solutions. *The Journal of The Association for the Severely Handicapped, 7*(4), 38–43.

Nietupski, J., & Hamre-Nietupski, S. (1987). An ecological approach to curriculum development. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 191–223). Baltimore: Paul H. Brookes Publishing Co.

Sailor, W., Halvorsen, A., Anderson, J., Goetz, L., Gee, K., Doering, K., & Hunt, P. (1986). Community intensive instruction. In R. H. Horner, L. H. Meyer, & H. D. B. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 251–288). Baltimore: Paul H. Brookes Publishing Co.

Wehman, P., Renzaglia, A., & Bates, P. (1985). *Functional living skills for moderately and severely handicapped individuals.* Austin, TX: PRO-ED.

York, J., & Rainforth, B. (1987). Developing instructional adaptations. In F. Orelove & D. Sobsey, *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 183–217). Baltimore: Paul H. Brookes Publishing Co.

BEST COPY AVAILABLE

2.255

Jorgensen, C.M. (1992). Natural supports in inclusive schools: Curricular and teaching strategies. In J. Nisbet, (Ed), Natural supports in school, at work, and in the community for people with severe disabilities. p. 179-215. Baltimore: Paul H. Brookes. P.O. Box 10624 Baltimore, MD 21285-0624

2.257

7

Natural Supports in Inclusive Schools

Curricular and Teaching Strategies

Cheryl M. Jorgensen

In schools that have made a commitment to developing inclusive communities, a casual observer hears and sees the evidence of that commitment:

- A teacher says, "As you do your experiment, make sure that everyone has a role. If your group has a problem or question, send someone to another group to get some help."
- A student says, "Aaron, please keep your hands to yourself. Why don't you use your picture book to tell me what you want?"

Appreciation is extended to Susan Frost, Carol Burmeister, George Janas, and the children at Canaan Elementary School for allowing us to videotape and interview them during the 1988–1989 school year.

The author would like to thank her personal and professional support system for their contributions to the ideas upon which this chapter is based: Stephen Calculator, Carolyn Rudy, Mary Schuh, Carol Tashie, and Neil Vroman.

Preparation of this chapter was supported in part by the University of New Hampshire's I.N.S.T.E.P.P. (Integrating Neighborhood Schools: Training Educational Personnel and Parents) Project (Grant #H086R80009-89), an in-service

2.258

- A sign on the door of a small classroom reads "Space to Learn."
- Three afternoons a week, a student who uses a wheelchair and three other 7th graders go into the community to do comparison shopping for various school supplies.
- Teachers participating in a mentoring program meet weekly to share observations of their visits to one another's classrooms and to generate solutions to common classroom management problems.
- During morning announcements, the principal reads a short quote from classic or popular literature that exemplifies the spirit of working together and then recognizes the cooperative efforts of students that she observed the previous day.

Unfortunately, there are still too many schools in which the following scenes are more common:

- Every quarter the students reaching the highest academic achievement are given "merit awards."
- A regular class teacher says, "The first row to be quiet gets an extra recess today."
- A special education teacher says, "Andrew needs to learn to walk by himself, so you children must stop helping him get over to the playground."
- Students with disabilities are not included in regular classes unless there is a full-time paraprofessional assigned to accompany them.
- Children in the "high" reading group get to work with a well-known children's author through a special enrichment program.
- A parent speaks out against the new middle school proposal because he's afraid his child will lose out academically if students are grouped heterogeneously.

What makes these schools so different? Did the first type of school always value cooperation and diversity? Is it possible to change people's long held beliefs about the concept of disability and focus instead on the gifts that children have to offer one another? If we create cooperative and caring schools where all children belong, will we be able to reach the president's educational

goal for the nation of "first in math and science by the year 2000?" Will students with significant challenges fall through the cracks if regular and special education merge into one system in which supports are available to all children and a primary measure of achievement is cooperation instead of competition?

This chapter discusses the concept of natural supports as it relates to public school practices by presenting:

1. A discussion of issues surrounding the use of natural supports for students with significant disabilities
2. A brief rationale for including all students in the mainstream of school life
3. A description of the characteristics of an inclusive school and the role of natural supports in realizing inclusion
4. A day in the life of a student with intensive educational challenges, highlighting how the school environment and culture, the curriculum, and people form a web of supports
5. Strategies for increasing the use of natural supports in schools

ISSUES SURROUNDING THE USE OF NATURAL SUPPORTS TO FACILITATE INCLUSION

The rationale for using natural supports in human services and in educational programs is based upon social, educational, and fiscal considerations. When students with severe disabilities were first integrated into regular education classes, positive social interactions and friendships with typical peers occurred, but students were often academically and instructionally isolated as in Biklen's "island in the mainstream" (Biklen, 1985, p. 19). It is still not unusual to visit a supposedly inclusive school and find students with intensive educational challenges being taught almost exclusively by instructional assistants, effectively out of the mainstream even as they sit at their own desks in a regular class. A humorous, but worrisome, symptom of this problem is typical students in a classroom thinking that an instructional assistant or integration support teacher is the mother or father of the child with severe disabilities (J. Libby, personal communication, October 15, 1989)! Schools that have applied the value of inclusion in their school structure and daily teaching practices carefully define the roles and responsibilities of support personnel so that students with intensive needs are not isolated by the very people who are trying to facilitate their inclusion (York, Vandercook, Heise-Neff, & Caughey, 1989)

---

training project funded by the United States Department of Education, Office of Special Education and Rehabilitative Services. The opinions expressed herein do not necessarily reflect the position or policy of the University of New Hampshire [illegible] the United States Department of Education, and no official endorsement [illegible]

BEST COPY AVAILABLE

2.259

Attending to the development of cooperative skills among school children also responds to the newest standards being set by higher education institutions and employers. Preparing tomorrow's adults to work effectively with others is one of the most pressing challenges of public school education. College admissions offices are decreasing their reliance on standardized test scores when judging candidates for admission and instead are looking for involvement in extracurricular activities, demonstrated leadership skills, and a history of community service in their applicants. Likewise, job recruiters are more interested in how well potential employees communicate and work with others rather than with their cumulative grade point averages. Thus, the use of cooperative learning and other peer-mediated support strategies—tools that facilitate inclusion of students with special needs—also yield educational (not just social) benefits for all students.

While financial considerations should not drive educational decisions, the reality of shrinking public school budgets dictates a rethinking of the categorical eligibility criteria for supplementary help that often prevent schools from making the most efficient use of funds and support personnel for the enrichment of the total educational environment.

If schools are to adopt the values of inclusive education, their challenge is to create an educational system that fosters the development of collaborative skills, that employs curricula and instructional methods that will yield high achievement among students, and that provides support to children in a way that does not work against the values the school embodies. This chapter is concerned with the last component of this challenge—defining and implementing use of supports, without prejudice, to enable all children to succeed.

An Operational Definition of Natural Supports

Natural supports for school-age students with disabilities might be narrowly defined as the components of a school program—people, materials, and curricula—that are customarily provided for students without identified educational disabilities. If this definition is accepted, wheelchairs, speech-language pathologists, sign language interpreters, augmentative communication devices, functional community-based curricula, instructional aides, g-tubes, and inclusion support teachers would not be considered natural supports. Must we give up those supports in order to square our practices with our values? Is that reasoning not the principle of

normalization gone awry (Wolfensberger, 1972)? It might it be more useful to employ the following definition of natural supports: *Natural supports for school-age children with disabilities are those components of an educational program—philosophy, policies, people, materials and technology, and curricula—that are used to enable all students to be fully participating members of regular classroom, school, and community life. Natural supports bring children closer together as friends and learning partners rather than isolating them.*

Through a discussion of the rationale supporting inclusion and examples of the components of inclusive schools, the following section shows how natural supports can be an integral part of an inclusive school.

WHY INCLUSION BENEFITS ALL CHILDREN

Three years ago, Jake Mayville became a regular education second grader at Canaan Elementary School in Canaan, New Hampshire. He was a member of a reading group, went outside during recess, raised his hand to answer questions during class, and had fights with his best friend, Blair. Jake was one of the first students with severe disabilities to be integrated into a regular class in the Mascoma Valley Regional School District, so his situation merited study by faculty from a nearby institution of higher education. When asked about their reactions to having Jake in their class, Jake's friends scoffed at the suggestion that something special was happening in their school. In response to the suggestion that some grown-ups thought that Jake ought to be in a special school with teachers who might know more about working with students like him, they shook their heads vigorously and told the researchers in no uncertain terms that Jake was a kid "just like us" and they were able to give him all the help he needed right there, thank you very much!

In order to meet his unique learning needs, Jake's teacher, Susan Frost, enlisted the help of the rest of the students in her class. They discovered together that Jake did not have much experience with words that described sensory experiences (e.g., hard, soft, crumbly, sharp, squishy) and that he might have a difficult time following discussions without a frame of reference for the descriptive vocabulary that the teacher thought was important for the class to learn. Two students made Jake a set of index cards that had various adjectives written on them in bold letters and they affixed corresponding materials to the cards (e.g., a rock, a

2.260

piece of sponge, sandpaper) that Jake could touch to begin to connect the word with the concept it represented. During seatwork time, students sitting next to Jake flowed from assisting him with his work to attending to their own worksheets. When Jake wanted to contribute to class discussions, students near him helped him raise his hand and interpreted his eye gazes to the teacher who was at the chalkboard. At recess time, the paraprofessional assigned to care for Jake's physical needs was able to observe from a distance while Jake's friends took turns wheeling him around the school yard.

At every level, Jake's situation illustrates the best characteristics of inclusive education: a teacher commited to inclusion, expanding the curriculum and designing instruction to meet the needs of all students, and having students work cooperatively to help each other learn. To Susan Frost and the children in her class, the reasons for including Jake were obvious.

First, Susan felt that Jake ought to be in a regular education class because the most important things for him to learn—communication skills, social skills, academic skills—would be hard for him to learn if he were in a class just for students with significant disabilities. Students with significant disabilities learn best when they are taught in those environments in which the skills ultimately will be used (Brown, Nietupski, & Hamre-Nietupski, 1976; Fox et al., 1986; Meyer, Eichinger, & Park-Lee, 1987). If our long-term vision for children with significant disabilities is that they be able to participate in and contribute to an integrated society, it just does not make sense to teach children in isolation from the people who will share that society with them.

Second, Susan knew that unless the other children in Canaan Elementary School went to school with children with disabilities, it was unlikely that they would develop positive attitudes about people with differences, much less become friends with them. Before she heard it in the film, "Regular Lives" (Biklen, 1988), Susan said, "The children that Jake goes to school with will be the adults that he lives with in this community, and they had better get to know one another now." Researchers have long known that the development of positive attitudes toward people with disabilities comes from ongoing, facilitated, and informal opportunities to interact with them (Johnson & Johnson, 1981; Voeltz, 1980, 1982). Puppet shows, "handicapped awareness days," and isolated opportunities to discuss disabilities have no long lasting effects on children's attitudes unless children get to know children and adults

Third, Susan was the kind of teacher who knew that each child in her class was gaining something different out of the lessons she taught. Having Jake in her class just added another child to think about in the same way that she had always approached teaching. Susan, like many other teachers, has noticed how more and more students each year are labeled as needing some kind of special help, for example, assistance provided for under Chapter I (of the Education Consolidation and Improvement Act, revised ESEA, Title I [PL 89-313]); English as a Second Language; Reading Recovery; special education; alternative education; and enrichment experiences. In some school districts the majority of the student body can be identified as having educational disabilities or being formally at risk (Gartner & Lipsky, 1987). When teachers accept that effective instructional strategies for children with learning problems are also effective for providing a rich education for all of the children in a class (Slavin, 1987; Walberg & Wang, 1987), there will be less need to separate children because they need what is viewed as specialized teaching.

Jake's friends said it best when they told the university researchers, "Jake shouldn't be in a class with only a few kids or with just other kids with disabilities. How would he make friends?" Real friendships that endure outside of school have a better chance of occurring when children are in classes with each other in their neighborhood schools (Forest & O'Brien, 1989; Perske & Perske, 1988; Strully & Strully, 1985).

Fourth, and finally, Susan, the students in her class, and other people who have welcomed students with differences into their schools agree that after all of the student oucome data have been analyzed, after all of the due process hearings have been adjudicated, after all of the cost-benefit analyses have been conducted, and after all the friendship circles have been filled, the one overriding reason to include children with differences into our schools is that it is the right thing to do. George Flynn, Director of Education for the Waterloo Separate School District in Canada, has proposed that decisionmaking regarding inclusion of students with differences employ equal measures of reason (the data) and intuition (the feelings) (Flynn & Kowalczyk-McPhee, 1989). Imagine what kinds of schools we could create if we trusted our intuition that inclusion is appropriate and spent all of our money, resources, energy, and talents on creating an educational system that benefits all children together. The decision to develop inclusive schools is, ultimately, a question of values and beliefs, that [illegible]

BEST COPY AVAILABLE

our belief that schools and society as a whole will be better for having known those children (Biklen, 1985; Stainback, Stainback, & Forest, 1989).

CHARACTERISTICS OF AN INCLUSIVE SCHOOL AND THE ROLE OF NATURAL SUPPORTS

Inclusive schools have been described as schools in which: 1) the importance and value of diversity is shown through the entire school culture, 2) the curriculum is designed with all students' needs in mind, 3) instructional models and strategies are based on cooperative principles, 4) staff engage in collaborative interactions to solve problems and to carry out instruction, and 5) friendships are intentionally facilitated (Stainback & Stainback, 1990; Stainback, Stainback, & Forest, 1989). An additional characteristic of inclusive schools is reliance on natural supports for children with extraordinary challenges; increasingly, this is being recognized as an important factor in making full inclusion successful.

School Culture Is an Indicator of Commitment to Full Inclusion

The pervasiveness of a school's culture can be a powerful roadblock to achieving full inclusion, but once certain characteristics of that culture are reformed to support inclusion, it can be a sustaining force. The role of the principal, the way that parents are treated, how space is utilized, the names of programs and special interest projects, and school traditions and celebrations help create a sense of community for children and adults (Sapon-Shevin, 1990; Sarason, 1982). If we can become sensitive to how certain components of this culture either impede or promote inclusion, we can develop strategies to change those that do not support our philosophy of diversity.

Philosophy Some components of the culture of a school are obvious and easy to categorize, while other characteristics are hidden but carry powerful messages, nonetheless. If there is a school philosophy, does it recognize the variability in children's abilities and talents and, more important, the benefit to having broad diversity among the student body and professional staff? Is the language of the philosophy clear about the need to use teaching techniques that address individual differences within heterogeneous classes? Does the school reward or discourage cooperation and collaboration? Some schools encourage children to form [illegible] of the curriculum across all subject areas. Children are taught how to help another child who is having difficulty with an assignment, without providing answers.

364 BEST COPY AVAILABLE

Labeling When students are labeled according to just one of their personal attributes (which often devalues them), that label can influence how other children and adults judge the child's abilities or personality. Do labels such as "Patricia's kids" (Patricia is a special education support teacher), "the kids from the projects," "the EH kids," or "the high reading group" foster a positive attitude toward diversity in a school?

Recognizing Different Talents In contrast, schools that value diversity may have honor rolls, but they calculate student progress and then reward students who go beyond their own individually determined goals (Ysseldyke & Christenson, 1986). Other schools give merit awards for academic achievement, athletic achievement, cooperation, and community service (Gardner, 1983; Rollinsford Elementary School Merit List, 1990).

Celebrating Diversity Schools that strive to make differences ordinary have books about people with disabilities in their libraries and deal with issues relative to prejudice and discrimination as part of the curriculum. Celebration of diversity can also occur through the kinds of holidays that schools choose to observe. Certainly, children can discover many universal themes by celebrating Christmas, Hanukkah, the birth of Buddha, and the arrival of spring.

Curriculum Includes Something for Everyone

While special education often sees general education as unresponsive to the needs of diverse groups of students, there are in reality a number of general education initiatives that offer learning opportunities for students with intensive educational needs. For example, middle schools in many parts of the United States are starting their own micro societies, that is, running a real business during school hours, to help children integrate knowledge from the various curricular areas (e.g., math [watching profit/loss margins], science [utilizing environmentally friendly methods for disposing of waste], and language arts [developing persuasive advertising]). Whole language and the writing process were born of research in regular education classrooms because teachers reported that few of their students were excited about learning, and they were unable to transfer isolated skills learned through basal approaches to their writing. The utilization of writing process [illegible]

365

2.262

in regular education classes who are labeled as having learning disabilities (Wansart, 1988). In the late 1970s, functional curriculum approaches were developed for students with significant intellectual challenges (Brown et al., 1979). The benefits of utilizing a functional curriculum (i.e., increased zest for learning, better integration of skills from different curricular areas, and improved generalization of skills to performance in criterion environments) are the same as those touted for parallel initiatives like micro society and experiential teaching in general education.

Involving typical students and students labeled as having educational disabilities in both in-school, hands-on learning experiences and out-of-school, community-based learning activities brings together the best ideas from both general and special education, provides opportunities for all students to learn about and from one another, and merges resources and personnel into a single unified system (Gartner & Lipsky, 1987).

Instructional Models for Diverse Groups of Learners Are Utilized

Even when the curriculum is broad enough to include students who are working on an eclectic array of skills, teachers still need instructional formats that enable them to structure the school day so that every student is spending time actively engaged in learning, and that enable teachers to document individual and group progress toward learning goals. Models such as the Adaptive Learning Environments Model (ALEM) and variations of cooperative learning formats are two examples.

ALEM The Adaptive Learning Environments Model, which employs prescriptive teaching principles, organizes instruction into seven steps:

1. Assessing students on the material before instruction
2. Developing individualized learning paths for each student
3. Developing individual, small cooperative group, and whole class lessons based on the material to be learned
4. Implementing learning activities
5. Testing for understanding
6. Revising instructional methods for students who have difficulty with material
7. Providing remediation or extension activities based on test results (Wang, Gennari, & Waxman, 1985)

Teachers who utilize this model learn how to move among

reinforcement or correction as they facilitate intra- and inter-group cooperation.

Cooperative Learning Cooperative learning is an effective way to teach basic reading, math, social studies, and science skills, at the same time that students learn cooperation (Johnson & Johnson, 1981; Sapon-Shevin, 1987; Slavin, 1983). True cooperative learning is characterized by: 1) task interdependence; 2) individual and group accountability; 3) use of small group social skills such as leadership, communication, trust building, decisionmaking, and conflict management; 4) frequent opportunities for face-to-face interactions; and 5) frequent reflection and feedback on how well the group is doing and suggestions for improvement. In a cooperative learning classroom, everyone is a learner and everyone can be called upon to provide assistance to someone else.

Peers as Natural Instructional Supports Through the natural inclination of students to help one another, students can be used to provide instructional supports on both an informal and formal basis during the school day. Using peers as teachers is an important component of cooperative learning insofar as all students in a cooperative learning group share in responsibility for the group's learning task. Even schools that do not subscribe wholly to cooperative learning can successfully utilize peer tutoring, if those experiences are designed carefully (Johnson, Johnson, Holubec, & Roy, 1984). When peer tutoring programs build in the opportunity for most students to experience both the tutor and tutee role, students' self-esteem can improve as they are regarded as the expert in a particular subject area. Peer tutors also solidify their understanding of concepts as a result of the preparation necessary to teach another student effectively. When students learn to rely on one another for assistance, the people power in a classroom is multiplied many fold, which increases the total number of supports available for all the students in that class (Dineen, Clark, & Risley, 1988; Osguthorpe & Scruggs, 1986; Villa & Thousand, 1988).

Membership and Participation Are Rights of All Children

Schools in which all children belong expend considerable effort ensuring that children feel that sense of belonging and that opportunities to participate in school activities are open to all children. A checklist developed by the University of New Hampshire's I.N.S.T.E.P.P. (Integrating Neighborhood Schools: Training Educational Personnel and Parents) Project offers s[illegible] indi-

BEST COPY AVAILABLE

2.263

cators of membership and participation. (The complete checklist contains indicators of membership, participation, friendship, and quality education and is available from the author.)

MEMBERSHIP INDICATORS

A student is a true member of a regular class if the student:

1. Rides the same bus as typical students from his or her neighborhood.
2. Uses the same facilities, rooms, resources as typical students (no separate places just for students with disabilities)
3. Is eligible for election to the Student Council
4. Is assigned to a grade, cluster, section, or homeroom like typical students.
5. Appears in photos in the yearbook/class picture
6. Has a locker, coathook, or storage space in a typical location
7. Arrives at school and leaves with typical students
8. Shares same school jobs and responsibilities with typical students.
9. Receives a report card, diploma, and academic awards like typical students.
10. Has "best of ability" work rewarded like other students
11. Is present at special events—graduation, plays, dances, sports events.
12. Is valued for individual characteristics. (Adapted from Jorgensen & Rudy, 1990, p. 2)

PARTICIPATION INDICATORS

A student is a fully participating member of a regular class if the student:

1. Is in regular P.E., art, music, IA, computer, and home economics classes.
2. Participates alongside typical peers in regular class lessons.
3. Goes on field trips to accessible places.
4. Can gain access to the entire physical facility, including desks, lab stations, and equipment.
5. Has appropriate technological supports to facilitate participation (computers, switches, adaptive devices, wheelchairs).
6. Is called on in class.
7. Participates in musical and dramatic productions.
8. Participates in extra-curricular activities (not just as "manager," scorekeeper, and so forth). (Adapted from Jorgensen & Rudy, 1991, p. 3)

Collaboration Among Staff Is Essential

Utilization of collaborative problem-solving and teaching is among the most important of all of the variables that make inclusive schooling work for everyone (Johnson & Johnson, 1987). There is no cookbook that gives the pr sured ingredients for in- [illegible]

alone risks being overwhelmed by the variety of learning needs in today's regular education classroom; does a disservice to the students by having only a limited number of strategies upon which to draw; and, finally, loses opportunities for personal and professional enrichment that come with working closely with a variety of other teachers and professionals. Teaching in inclusive schools demands collaboration in order to be effective.

Among the forums for teacher collaboration are: curriculum design and revision, planning instructional activities and developing teaching materials, sharing strategies for classroom management, mentoring new teachers, sharing information gained through coursework or in-service workshops, peer observation and assistance, and team teaching.

For special education teachers and related services professionals in inclusive schools, new job descriptions are being written that emphasize the collaborative, transdisciplinary nature of facilitating regular education class support (Giangreco, York, & Rainforth, 1989; Sternat, Messina, Nietupski, Lyon, & Brown, 1977). It will no longer be enough for teachers and therapists to have expertise only in their curricular or disciplinary area (e.g., teaching reading, designing augmentative communication systems, developing motor development programs). Every team member will need to demonstrate skills in the areas described in the following four sections.

Training Other Adults and Students To Utilize Strategies or Techniques from an Unfamiliar Discipline For example, the role of the speech-language pathologist (SLP) who works in an inclusive school is to provide to all students assistance with better communciation. For the student who utilizes an augmentative communication system (e.g., sign language, a picture book or board, facilitated communication, an electronic speech synthesizer), the speech-language pathologist's role is to assist the classroom teacher in identifying the best way to give instructions to that student, to teach other students how to converse with the student using his or her system, to interview other students to help identify the vocabulary that will make the student's participation in regular education class activities most meaningful and complete, and to train students and other team members to carry out instructional programs in the SLP's absence.

Collaborative Problem-Solving and Priority Setting In the past, development of the team IEP consisted merely of stapling together pages of goals that were developed independently by [illegible]

BEST COPY AVAILABLE

2.264

tive goals (developed by the teacher); communication goals (developed by the speech-language pathologist); fine motor goals (developed by the occupational therapist); gross motor goals (developed by the physical therapist); and, perhaps, social or behavioral goals (developed by the behavioral consultant). It is no wonder that the regular education class teacher resisted the student's inclusion, saying, "But I don't teach 'fine motor' and 'cognitive' in my class; where's the spelling, the science, and the language arts?"

In inclusive schools, the outcome of assessment and goal setting for students with intensive educational needs should be a unified set of goals, free of disciplinary bias, that contribute to the student's successful participation in a regular education class (Giangreco, Cloninger, & Iverson, 1990).

Ability To Work Side by Side with Other Adults in the Classroom In some school districts that are working toward full inclusion for all students, principals acknowledge that some teachers will never feel comfortable having other adults in their classroom. How often have we heard teachers say, "Just give me my students, tell me what to do, and then leave me alone to teach." Given the diversity of learning needs in the regular education classroom of the 1990s and the demands on teachers to implement the latest curricula, complete paperwork associated with record keeping, and document progress for all children, can we accede to this teacher's plea? Based on observations of inclusive classrooms, teachers who are uncomfortable with other adults in their rooms usually have not had planning time with those individuals so that relationships and trust could be developed, expectations shared, instructional plans coordinated, and roles defined. In-service training relative to collaborative teamwork must address both the planning component of collaboration (i.e., how team members will work together to identify priorities and plan lessons), as well as the implementation of collaboration (i.e., who will do what in the classroom).

As schools change toward full inclusion, special education teachers and related services professionals who were trained in narrow categorical areas such as mental retardation, learning disabilities, communication disorders, emotional disturbances, and gifted and talented students' needs will find that they need to expand their expertise and roles. While the total number of people needed to support all children in regular education classes is unlikely to decrease, job roles will change considerably. Inclu[illegible] [illegible] will need many talented individuals to assist with

room and individual student management, curriculum modification and instruction of heterogeneous groups of students, design of instructional programs to help all children learn to communicate more effectively, and establishing linkages with business people and other community members so that community-based learning experiences can be developed for all students (Pugach, 1988; Stainback & Stainback, 1989).

Time Management, Accountability, and Documentation When special education teachers or related services professionals teach students discrete skills or behaviors in isolated settings with individual or small groups of students, measurements of progress and accountability seem easier than when services are delivered by many members of transdisciplinary teams in integrated settings. Easy-to-use checklists of target skills, videotape of a student's participation in a particular lesson or activity, and guidelines for using observational techniques to measure learning must be developed and used by all staff involved in delivering instruction and supports to students across multiple school environments.

A Priority Is Placed on Friendships

As described by Jeffrey L. Strully and Cynthia F. Strully in Chapter 6, the intentional building and supporting of friendships among students is a cornerstone of caring and inclusive schools and represents the most natural of all supports available to students. When a student has an abiding circle of friends, they join with the student's professional support team in planning and implementing supports for that student throughout the day (Forest & O'Brien, 1989). Other students are sensitive to the indicators of friendships for their age group of peers and should be involved in evaluating how full the student's life is. The following checklist offers a beginning list of markers that can be used as a measure of a student's connectedness to other students in the school:

> FRIENDSHIP INDICATORS
>
> Students truly belong in a school if they:
>
> 1. Have friends (not just peer tutors or buddies)
> 2. Spend time with typical students after school and on weekends
> 3. Get telephone calls from friends at home
> 4. Go out on dates, to parties, proms, and so forth
> 5. "Hang out" with typical kids during school hours
> 6. Are chosen by others for team membership
> 7. Write and receive notes to other students in school
> 8. Are named by others as their friends (Adapted fr[illegible]orgensen [illegible]

BEST COPY AVAILABLE

A DAY IN THE LIFE OF JOSHUA

Natural supports, philosophy, curriculum, and instruction have meaning only when discussed in the context of the needs of real students. Joshua is an 11-year-old boy who attends 5th grade in his neighborhood school. This section takes a detailed look at Josh's school day, his learning objectives, the supports necessary for him to be a real part of his class and school, and the role of peers and professionals to determine if those supports are as natural as possible.

Vision

Every decision that Josh's family makes regarding his schooling is grounded in their vision for his life after he leaves school. That vision is not different from what most parents want for their children and includes:

1. Having friends
2. Having a place to live that is not an institution or his family's home, with people he likes
3. Having a paying job in a real work setting
4. Being able to move around the community, enjoy the outdoors, attend musical events
5. Being safe and secure
6. Being respected and liked by people in the community

Who Is Josh?

His mother and sisters and other people in his life describe him in the following way: He has great rhythm; uses facial expressions to communicate his wants, needs, and feelings; likes music; is happy; becomes bored when not doing something interesting; is affectionate; is in great health; is patient; needs much help with personal hygiene and other activities of daily living; is fun-loving; is handsome and cute; moves around by walking; and has severe mental retardation.

While Josh's family wants him to participate in all of the usual 5th grade activities and lessons, there are some very important priorities that they would like the school to concentrate on during the present school year. (These priorities [IEP annual goals] are taken from the COACH Manual [Version 6.0] by Giangreco et al. [1990]. COACH is an assessment and program planning tool that assists teams in designing individualized education programs based on family priorities that can be implemented in in-

2.265

1. Expanding his ability to make choices from among objects, pictures, and symbols
2. Sustaining interactions with other children
3. Learning the school routine since this is his first year in this school
4. Understanding one-to-one correspondence in everyday situations
5. Making friends
6. Managing his own belongings at school
7. Spending leisure time with friends
8. Doing a school job on a weekly basis

Analysis of Josh's Day

Taking a close look at how Josh spends a typical day at school will enable us to determine whether Josh's learning needs are being met through the use of natural supports that facilitate his full membership and participation in his class. An in-class observation tool developed as part of a 3-year OSERS (Office of Special Education and Rehabilitative Services) in-service training project (I.N.S.T.E.P.P.) provides a format for observing a number of critical variables for later analysis. (Sample blank and completed forms with detailed instructions for use are available from the author.)

Figure 7.1 presents data gathered during observation of Josh throughout a typical school day. In the first column, labeled "Class/activity," a brief description of what the typical students are doing is presented. Teacher directions and comments are noted here as well. In the second column, labeled "What does Josh do?", a running narrative of Josh's behavior and participation is presented, with particular attention paid to the discrepancy between what Josh is doing and the class norm that is reflected in the first column. And in the last column, labeled "Supports," the role of anyone who assists Josh is described.

This form is typically used by a team member who is gathering information for later consideration by the whole team. A regular education classroom teacher might observe for part of a day to discover patterns of interaction among the students in the room. A speech-language pathologist might observe once a week for several weeks during the same time period to discover how functional a student's augmentative communication system is. An inclusion support teacher might observe during a lesson that offers many curriculum modification challenges to form the basis for team discussions regarding potential ways for a student to

2.266

Time	Class/activity	What does Josh do?	Support
8:00 A.M.	Children are off to school by car, bus, walking.	Josh's mother drops him off in front of school.	Josh's mother drives Josh and two other neighborhood boys.
8:05	Kids play on playground before school bell rings; Josh's buddies are throwing a ball against the outside wall of the school.	Josh and friends walk over to side of building; Josh is just standing with the other boys; he acknowledges their greetings with a smile and an excited giggle.	Other students walk with Josh; they slow their pace a little so Josh can keep up.
8:15	School bell rings; kids rush into school.	Josh looks toward the bell and walks along into school with crowd.	No support necessary; he knows routine.
8:20	Kids hang up coats in lockers in hall; get lunches and books out of knapsacks.	Josh gets to the right area but then just stands in front of lockers. Josh gives the locker door a push, picks up knapsack, and follows a friend into the room.	Kid next to Josh says, "Hang your coat up, Josh"; opens locker for him; takes his hand and helps him unzip coat; hangs his coat in locker; says, "Close your locker and bring your knapsack."
8:25	Students put their lunchboxes in crate and go to the writing folder boxes; they get their own folders and go to their desks. Teacher says, "Alright, let's try to get some writing in before announcements."	Josh goes up to teacher and takes his hands, smiles, and shakes his hands up and down. Josh finds the picture of his lunch box, alternates his gaze from his lunchbox to the picture, and sets the lunchbox on the counter. Josh finds his folder and sits	Teacher says, "Hi Josh," and gently puts Josh's hands down; says, "Let's put your lunch away and get your writing;" he walks with Josh over to where the lunchboxes are kept; he asks Josh, "Where does this go?", and prompts Josh to put his lunchbox under the picture of his lu

Figure 7.1. (*continued*)

Time	Class/activity	What does Josh do?	Support
			Teacher says, "Matt, would you please help Josh find his folder? Just have him find the one with his picture on it. Thanks."
8:40	Announcements come on.	He listens and looks at the P.A. speaker.	None needed.
	Students say Pledge of Allegiance.	Josh stands with everyone else, looks around when Pledge is recited, puts his hand on his heart.	Student next to Josh motions for Josh to put his hand on his heart.
8:45	Students return to writing.	He looks through his scrapbook and points to pictures of his Boy Scout troop on a recent camp out.	Two students go up to Josh and say, "Let's go over to the reading corner;" they all go behind a bookcase partition and sit on a small loveseat; Josh is between the boys; they read their journals, offer suggestions to each other, and ask questions; they talk with Josh about the camping trip and ask him to point to various people he knows.
9:10	Students get into pairs and share their reading; teacher comes around and asks each pair about their journal en-	Josh reads with another pair of students.	Students come over to Josh and ask him about the pictures; they share their writing with him.

BEST COPY AVAILABLE

2.267

Figure 7.1. *(continued)*

Time	Class/activity	What does Josh do?	Support
9:25	Students put their writing folders away and get ready for gym.	Josh takes his folder up to the file boxes; he lays it on the shelf; he tries to put folder in box but it will not fit.	One student says, "Time to put our writing away. Can you put yours in the front of the box?" Student puts it in for him.
9:30	Students get up and leave for gym.	Josh gets up and walks with group.	No support needed.
9:35	Students run around the gym five times.	Josh bounce-walks with the gym teacher; he gets about ¼ of the way around one lap then stops and watches rest of class.	Gym teacher keeps up friendly banter as he jogs a little in place next to Josh.
9:40	Students sit in a circle as teacher describes game called Freddy Kruger, a modern version of Red Rover.	Josh sits with group but occasionally flops onto his back and rolls from side to side.	No support needed.
9:45	One student in the middle is Freddy; he tries to capture helpers as class runs across Freddy's space.	He plays just like other students; laughs and runs wrong way sometimes.	Kids form a protective circle around Josh and shepherd him a little across gym floor.
		Tries to catch other kids because he became a helper when Freddy tagged him.	No support needed.
10:10	Gym class is over; students line up for a drink at the fountain.	Josh lines up for a drink too; he tries to push the button but cannot push it hard enough; he drinks when water comes on and gets wet.	Peer puts his hand over Josh's and pushes button so that water comes out.

Figure 7.1. *(continued)*

Time	Class/activity	What does Josh do?	Support
10:18	It is snack time.	Josh carries his chips and juice pack to his desk. Josh eats his chips and drinks from his juice pack.	Another student helps Josh get his snack out of his knapsack. He says, "Let's go eat our snack." Student opens Josh's chips and puts straw in juice pack.
10:25	Language Arts: students are working in four groups—two groups are writing a persuasive speech for and against mandatory locker searches for drugs; one group is making a collage showing alternative activities to do instead of using drugs and alcohol: "Healthy Lifestyle Choices;" one group is putting together a display for the foyer on the dangers of using drugs.	Josh is working with the group that is making the collage; his role is to choose scenes for the collage and paste them on the poster board.	Speech-language pathologist comes in to work with the group Josh is in. She shows the other students how to give Josh a choice from among two that the students have cut out; she enters into discussion with students about their choices; she role plays: "What would you do if someone offered you drugs? What should Josh do?"
11:00	Math: students are working on multiplying and dividing fractions.	Josh leaves the room at this time to work in the school's recycling business.	Two students from the 8th grade come to pick up Josh and they go down to the cafeteria.
11:05	Math continues.	Josh and two friends sort paper, cans, and plasticware.	Friends guide Josh to put the cans in the can bin one by one, and the plasticware in the plastic bin.

2.268

Figure 7.1. (*continued*)

Time	Class/activity	What does Josh do?	Support
11:45	Class is finished with math and they have a current events discussion.	Josh is finished with his job and comes back to the classroom. Josh goes to the boy's room to have his Attends changed.	Recycling pals walk Josh back to classroom. Paraprofessional meets Josh there and walks with him to the boy's room; there is a screened off corner where he changes his Attends.
11:55	Class is still discussing the Middle East.	Josh returns to classroom and sits at his desk; he listens to the class discussion.	Paraprofessional walks him back to class.
12:00 P.M.	Lunchtime: some students go through the lunch line; others bring cold lunch and go directly to eat.	Josh eats cold lunch; he has a sandwich and chips, and gets milk in the line.	Lunch workers help Josh get his milk carton; they know that his milk ticket is in his shirt pocket and help him get it out; a friend waits while Josh throws bag away; then they all just walk outside together; a friend goes to another group.
12:30	Lunch is over and kids go outside for recess; some kids play ball games, some are using a climbing apparatus, others are talking.	Josh walks out with friend; he sees kids he knows and goes up to them; a group of girls talks and walks with him around the blacktop.	
12:45	Bell rings and recess is over; kids go inside the building.	Josh wanders over to the equipment, picks up the pea stone, and plays with it. He smiles at her	Recess monitor goes up to Josh and says, "Josh, it's time to go inside now. You are in Mr. Carney's

Figure 7.1. (*continued*)

Time	Class/activity	What does Josh do?	Support
		but begins to walk farther away from the school entrance. He goes with her.	room, aren't you?" Monitor takes him by the arm and talks to him as they walk into the school.
12:55	Science: the teacher is continuing the unit on electricity. He asks students to take out their texts and follow along as he reads the definition of the two types of circuits; teacher then draws diagrams of the two types of circuits on the board; task is to set up both circuits and to see which arrangement will light more wattage.	Josh will work with his small group to build a parallel and a series circuit; objective is for Josh to hand a student various materials that the student points to; Josh is in charge of the materials.	The students in his group will help Josh do the physical parts of the task. The teacher has six trays of materials; he hands a tray to a student from each group; puts a tray in front of Josh.
1:05	Students work in groups to put together circuits; they are discussing what they think will happen, trying to explain what does happen.	Josh hands materials to students; he does not know names of objects, but responds to the requests.	Students ask, "Josh, give me the light bulb, please," while pointing to the object.
1:20	Teacher directs each group to write up one lab report in a cooperative fashion; students assume various roles in the group; the teacher tells them they have 20 minutes to finish.	Josh's job is to put all materials back into tray and take the tray back to the cabinet. Josh is the timekeeper and is supposed to tell the class when time is up.	He is prompted to tell when time is up by various students as they engage in the discussion. Another student sets the timer and puts it in front of Josh; the teacher says, "Josh will tell us when time is up."

BEST COPY AVAILABLE

Figure 7.1. *(continued)*

Time	Class/activity	What does Josh do?	Support
	Groups know the parts of the report and work together to dictate their observations to the student who is doing the writing	Josh sits with his group as they discuss; his attention wanders, but he seems fine.	Students periodically ask, "Is our time up, Josh? How many minutes left?" They point to the number on the timer and say, "10 minutes left, Josh."
1:40	Time is up. Teacher says, "We have time for only one group to share their report. Group number 2, why don't you come up to the front of the room. Now, first tell me who took what role? Who's going to read the report?" Student reads report; teacher asks each student a question about their observations, conclusions.	Josh is named as the timekeeper. Josh stands with his group as they read report.	No support needed.
1:50	Exploratory Period: During the last period of the day, students have a choice of receiving tutoring, working on homework, or participating in special activities like school newspaper, chess club, tai chi, and so forth. Typical students may do special activities two times per week.	Josh goes to work on the set of a play that the drama club is doing. Josh is painting sets. Working on sustaining interactions with other students, making choices, making friends, spending leisure time with friends.	Occupational therapist (OT) meets Josh and walks to the art room with him and five other students from Josh's classroom.
		Josh does special activities five	OT works right alongside stu-

Figure 7.1. *(continued)*

Time	Class/activity	What does Josh do?	Support
	Students are talking, gossiping	Josh chooses colors to paint with	When Josh tries to paint he cannot really hold the brush tightly enough; OT says, "Guys, this is not working for Josh. Do you have any ideas?" One girl says, "When Josh plays drums in music class, he has some kind of white thing wrapped around the sticks. Would that help?" OT says, "Maybe I'll go to my office and see if I have any more of those." While OT is gone, a girl helps Josh hold the paintbrush to steady it. OT comes back and wraps foam around a paintbrush.
2:20	First bell rings for dismissal. Other students' quickly wash brushes and rush back to their classrooms. Students get their books, knapsacks, lunchboxes, and coats.	Josh cannot help clean up because he takes longer getting back to the classroom. He does not like being rushed and protests.	OT walks him back to his classroom; she runs into the classroom and asks the teacher, "Does Josh need to bring anything home tonight?" Teacher speaks above the noise, "Just his knapsack."

2.269

2.270

Figure 7.1. (*continued*)

Time	Class/activity	What does Josh do?	Support
2:30	Final bell rings for dismissal; kids stream out and line up for the bus.	Josh does not have his coat on yet.	OT helps him put on his coat and knapsack and rushes him out the door; she asks several students, "Does anybody know which bus Josh is supposed to ride?" Principal is standing in foyer and says, "Bus 16;" OT takes him to correct line and he gets on bus.

participate in subsequent lessons. In Josh's example, we will ask four questions to help us focus on the school's use of natural supports for him.

How Does the Big Picture Look? Josh's day looks like a nice balance between time spent on academic tasks and time to socialize with friends. The more unstructured times of the day provide rich opportunities for Josh to develop the communication and social skills that his family sees as a priority. Josh looks like a real member of the fifth grade, not just a mainstreamed visitor. Students provide assistance for him, but they are not condescending toward him. Students seem to know when to do an entire task for Josh that would be too difficult (e.g., hang up his coat, open his chips bag, or put his writing folder away) and when to provide some lesser level of assistance that will give Josh a chance at increased independence (e.g., helping with his coat zipper, helping with the water fountain button, or pointing to objects they would like Josh to hand to them).

Do Josh's Supports Work Together To Make Him a Real Member of His Class? If we analyze how Josh spends his time during the school day, we see that he receives support from a surprising variety and number of sources throughout the day:

1. His mother drops him off at school.
2. Neighborhood kids ride with him to school and walk with him over to the playground in the morning.
3. [illegible] Josh's helps him wi

382

4. A classroom teacher helps him with his lunch and personal belongings.
5. Students in his class help him find his writing folder, read with him during language arts time, help with the Pledge of Allegiance, help him pretend to escape from Freddy Kruger, help him with his juice box and chips bag, help him contribute to the science activity, and teach him how to use a timer for knowing when activities are completed.
6. The occupational therapist tries to adapt a paintbrush for him, assists him in collecting his belongings, and makes sure that he boards the right bus at the end of the day.
7. The principal tells the occupational therapist which bus is Josh's.
8. The speech-language pathologist helps him participate in making an anti-drug collage.
9. Students in other grades help him participate in the recycling project.
10. A paraprofessional helps him with personal hygiene.
11. Cafeteria workers help him learn the lunch routine.
12. The physical education teacher runs with him during gym.
13. The recess monitor accompanies him in from recess.

These supports all contribute to Josh's ability to participate in daily routines. On this day, at least, none of Josh's supports seem to single him out. Both the speech-language pathologist and the occupational therapist provide assistance to a small group of students that includes Josh. However, if Josh were receiving out-of-class therapy services from the therapists, he would miss out on two valuable opportunities to learn important skills and to participate in activities that contribute to the perception that he is a full-time member of the fifth-grade class.

It is also important to note how several of the individuals providing support to Josh make a concerted effort to facilitate other students' support to him. For example:

1. Josh's teacher recruits another student to help Josh find his writing folder. The teacher tells the student how to provide the least intrusive assistance by saying, "Just have him find the one with his picture on it."
2. The speech-language pathologist uses the context of the collage activity to show other students how to give Josh a choice from between two pictures.
3. The occupational therapist involves other student[illegible]

BEST COPY AVAILABLE

383

brush. She opens the opportunity for students to realize that they have special knowledge that is even more valuable than that of an expert.

If a team can answer, "yes" to questions 1–6 and "no" to questions 7–10 below, they can be fairly certain that supports are being delivered in a way that is not stigmatizing to the student with a disability:

1. Does the regular education classroom teacher spend as much time interacting with the student with a disability as with typical students?
2. Do support staff sit as far away from the student as possible, unless providing direct instruction?
3. Do typical students talk directly to the student with a disability instead of through a support person?
4. Do support staff direct student questions and comments away from themselves and toward the student with a disability?
5. Do typical students seek out support people for help with seatwork?
6. Might a casual observer confuse the identification of the classroom assistant, volunteer, support teacher, speech-language pathologist, or occupational therapist?
7. Do typical students call support personnel by their first names (or use a different convention than that used with the regular education classroom teacher)?
8. Would typical students be embarrassed by the attention that the student with a disability receives from support personnel?
9. Has a support person ever been mistaken for the student's mother or father?
10. If a minor crisis arises, do the typical children call out for the instructional assistant instead of the regular education classroom teacher?

Are Josh's Learning Goals Being Addressed and Met? If we cross reference, or matrix, Josh's learning goals with the daily schedule, we can see that he has multiple opportunities to work on his educational goals throughout this particular school day. (See Figure 7.2.)

Assessment of how well Josh's program achieves meaningful outcomes for him should include both quantitative and qualitative measures of the following questions:

[illegible]

dule/ s	Arrival	Writing	Gym	Snack	Language arts	Recycling	Lunch	Recess	Science	Exploratories	Dismissal
ake choices		x		x	x	x	x	x	x	x	
ustain interactions	x	x	x	x	x	x		x	x	x	
earn the school routine	x	x	x	x	x	x	x	x	x	x	x
nderstand one-to-one correspondence						x			x		
pend leisure time with friends	x		x	x		x	x	x		x	
anage own belongings	x	x		x	x		x		x	x	x
ake friends	x	x	x	x	x	x	x	x	x	x	x
chool job						x					

Figure 7.2. Matrix of Josh's schedule and learning goals

BEST COPY AVAILABLE

2.271

2.272

3. Is his family satisfied with his school program and the overall quality of his life?
4. Is Josh happy?
5. Does he have a wide circle of friends?
6. Does Josh participate in lots of activities with his friends in a wide variety of community environments?
7. Is Josh making progress in achieving his priority learning goals as reflected on his IEP?
8. Is Josh learning how to work with other students during the structured and unstructured times of the day?
9. Is Josh being exposed to opportunities to learn about subjects not currently on his IEP? Is he having a broad, rich educational experience?

Is There Any Part of Josh's Day that Could Be Improved? Including students with diverse learning needs is an ongoing problem-solving process guided by an evolving set of priorities that support a long-term vision of quality of life. While Josh's day has many wonderful components, his team might consider how the following issues could be addressed:

1. Josh's teacher does not have any direct instructional time with him. He is doing a great job of structuring his lessons and facilitating small group activities that include Josh, but a next step might be utilizing another support person to manage the whole class while the teacher has some time to work with Josh or, at least, Josh's group.
2. If this school did not have the end-of-the-day exploratory activities for students, we might be concerned about the lack of time that Josh has to talk with other students in nonacademic settings. For example, before school and during recess, Josh is out among his peers, but conversations between them are fleeting. Might someone bring up this issue to Josh and a group of his friends? Are the students unsure of what to talk with Josh about? Could Josh's mother send in more pictures of weekend activities for students to talk about with Josh?
3. Josh's role during group activities that involve discussion and writing should be expanded. Perhaps a team member or a group of students could put together some learning centers or other hands-on activities relating to the science topic. While Josh did not seem to have any difficulty being with his group as they wrote up their science lab report, his participation in that activity could expand beyond the role of timekeeper. If the students in Josh's group could take instant pictu several of the steps in the experiment, Josh might paste those pictures onto the group's lab report, providing both a pictorial as well as a written account of the experiment.
4. There are few opportunities for Josh to learn one-to-one correspondence. Are there any untapped opportunities for Josh to learn this skill that would not remove him from the normal flow of the classroom? Passing out papers (one to each student), delivering attendance sheets, putting a fertilizer pellet in each of several plants, and putting a staple in each of several stacks of collated worksheets are all examples of one-to-one correspondence that might be worked into Josh's daily routine.
5. The end of the day transition is disorganized, but that is typical of many students and classrooms! If this time of the day is always hectic, students in Josh's class might be asked to take turns walking with Josh out to the bus at the end of the day.

STRATEGIES FOR INCREASING THE USE OF NATURAL SUPPORTS

The effective use of natural supports in inclusive school programs begins with gaining consensus among team members that natural supports have value in the lives of students and adults with disabilities. The following strategies can be utilized by parents or other team members to develop a commitment to and competence in using natural supports.

Share with Others the Rationale for Using Natural Supports

The whole natural supports initiative arose because of the problems inherent with paid, professional supports in work and community living environments. First, there is not enough money to pay for all the supports that some individuals need in order to be a part of the community. And second, while there is a need for some level of paid, professional supports in the lives of people with significant disabilities, human services workers cannot adequately fill the roles that natural supports can. Overnight staff are not mothers and fathers, leisure buddies are not friends, and job coaches are not employers (Perske & Perske, 1988). Likewise, when students are in school they need to learn how to function with the same level of supports that they can expect to have when they become adults.

Parents, teachers, or administrators might arran service workshop to be given by a supervisor or coworker from a business that employs people with disabilities or perhaps the roommate of someone with significant support needs. Showing adults in schools what is ahead for their students can help them make better decisions about support systems for people when they are still in school.

Make Friendships an Educational Priority

When parents are clear about the importance of friendships in their son's or daughter's school program, other support team members will have the incentive to devote time and resources to achieving that priority. Parents should be cautious about professionalizing the development of friendships, however, and should be wary of IEP language such as: "In small group discussions the student will identify three characteristics of a friend," or, "The student will participate in a social skills training group," or, "The student will accompany a peer buddy to recess 3 days a week." If parents or other team members find it necessary, there are ways to incorporate circles of friends activities or peer supports during extracurricular activities into the formal education program (Strully & Strully, 1989; Vandercook, York, & Forest, 1989).

Develop a "Least Intrusive Supports First" Planning Process

Team members often do not know how to collaborate among themselves, let alone think about facilitating cooperation and natural supports among children. Specific training in collaborative consultation and cooperative learning go hand in hand. As teams plan the supports a student will need during various classroom lessons and daily routines, they should think first of using other students as supports; then using the classroom teacher or instructional assistant or volunteers; and, finally, using specialized supports such as an inclusion facilitator or related service professional. The following strategies may help team members think about how to structure lessons and supports in ways that do not stigmatize students with intensive educational needs.

1. Make sure that one student is not being singled out to receive assistance. Make helping and cooperation an expectation for everyone in the class. Teachers can say, "Let's make sure that everyone understands the assignment. Take a minute to check it out with your study buddy."
2. When planning lessons in which some students will need as- [illegible] think first of using other students to provide help. Start a peer tutoring program using older students. If adult assistance will be necessary, think first of the role of the regular education classroom teacher, then the regular education classroom aide or volunteer.
3. When a specialist is necessary or desired, plan for how that person will work with small groups of children or relieve the regular education classroom teacher. The specialist could work with individuals or small groups of children. For example, a speech-language pathologist might work with a reading group on oral reading skills. Some students could be prompted to read with expression, others could be taught strategies for decoding new words, while another student could be urged to articulate more clearly the names of pictures in a communication book.
4. Be honest with students about not having all the answers and enlist their help in solving problems. The teacher might say, "We're starting our unit on the solar system next week. Today I'd like each group to come up with an idea for a learning center about the nine planets in our solar system so that everyone in our class will be able to participate. We'll share our ideas in 15 minutes."
5. Be satisfied with achieving balance. Avoid always pairing the most academically gifted students with the students who need the most assistance. Students should develop independent work habits as well as cooperative skills. It is workable occasionally to group students together who are working at the same pace or at the same level. In inclusive schools there are no high or low groups, and achievement at any level is rewarded.
6. Teach students helping strategies so that they do not just give other students the answers. Teachers can say, "When we don't know a word, what questions can we ask ourselves or our friends to help understand the word?"

Share Examples of Students Working Together

We all learn from examples. For instance, a principal might develop a strategy for sharing model practices with other staff people. The following are some easy ways for students to support one another during instructional class times:

1. Helping a friend type using facilitated communication
2. Conferencing during process writing
3. Helping a student move arms and legs during physical education exercise routines

2.273

2.274

4. Interpreting communicative attempts (e.g., sign language, eye gaze, changes in facial expressions, body posture) for other listeners
5. Offering reminders about good behavior (e.g., "John, if you're mad, why don't you tell me instead of hitting?")
6. Studying together (e.g., quizzing each other in spelling, math, or learning new pictures or symbols)
7. Making instructional materials for other students (e.g., study cards, picture books, scrapbooks, or audiotapes of stories)
8. Scribing oral stories for nonwriters
9. Reading to students who do not read
10. Providing partial physical assistance in the lunchroom, during science lab, home economics, industrial arts, and so forth
11. Offering peers choices using their augmentative communication system
12. Playing interactive computer and board games together

The principal might also show that cooperation is valued in his or her school by: 1) awarding the school banner to the classroom that best demonstrates cooperation and caring, 2) publically acknowledging teachers who use students as natural supports, 3) sponsoring in-service training workshops by teachers from other schools who are employing natural supports, 4) providing substitutes so that teachers can spend time observing in their colleagues' classrooms, and 5) distributing reading materials that describe case studies.

Create a Culture of Cooperation and Caring in the School

If schools create a culture of cooperation, caring, and celebration of diversity, changes in curriculum and instruction will follow naturally. There will be no need for the term natural supports because school philosophy and policies, the curriculum and instructional models, job roles and titles, and the empowerment of students within the educational process will form a web of support for all students.

> Concepts like integration, normalization, life-sharing, mainstreaming, and others are only vehicles for change and not the end. When we reach a state of natural acceptance and inclusion of people with developmental disabilities, we will no longer need these ideas. (Bogdan & Taylor, 1987, pp. 213)

REFERENCES

iklen, D. (Ed.) (1985). *The complete school: Strategies for e*[illegible]

Biklen, D. (Producer). (1988). *Regular lives* [Videotape]. Washington, DC: State of the Art.

Bogdan, R., & Taylor, S.J. (1987). Conclusion: The next wave. In S.J. Taylor, D. Biklen, & J. Knoll (Eds.), *Community integration for people with severe disabilities* (pp. 209–213). New York: Teacher's College Press.

Brown, L., Falvey, M., Baumgart, D., Pumpian, I., Schroeder, J., & Gruenewald, L. (Eds.). (1979). *Strategies for teaching chronological age appropriate functional skills to adolescents and young adult severely handicapped students* (Vol. 9). Madison: Madison Metropolitan School District.

Brown, L., Nietupski, J., & Hamre-Nietupski, S. (1976). The criterion of ultimate functioning and public school services for severely handicapped children. In M.A. Thomas (Ed.), *Hey, don't forget about me: Education's investment in the severely, profoundly, and multiply handicapped* (pp. 2–15). Reston, VA: Council for Exceptional Children.

Dineen, J.P., Clark, H.P., & Risley, T.R. (1988). Peer tutoring among elementary students: Educational benefits to the tutors. *Journal of Applied Behavior Analysis, 10,* 231–238.

Flynn, G., & Kowalczyk-McPhee, B. (1989). A school system in transition. In S. Stainback, W. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of regular education* (pp. 29–41). Baltimore: Paul H. Brookes Publishing Co.

Forest, M., & O'Brien, J. (1989). *Action for inclusion.* Toronto, Ontario: Centre for Integrated Education, Frontier College. 416658-.

Fox, W., Thousand, J., Williams, W., Fox, T., Towne, P., Reid, R., Conn-Powers, C., & Calcagni, L. (1986). *Best educational practices '86: Educating learners with severe handicaps.* (Monograph No. 6–1). Burlington: University of Vermont, Center for Developmental Disabilities.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Gartner, A., & Lipsky, D. (1987). Beyond special education: Toward a quality system of education for all students. *Harvard Educational Review, 57,* 367–395.

Giangrego, M.F., Cloninger, C.J., & Iverson, V.S. (1990). *C.O.A.C.H. Cayuga-Onondaga assessment for children with handicaps.* Version 6.0. Stillwater, Oklahoma: National Clearinghouse of Rehabilitation Training Materials.

Giangreco, M.F., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in least restrictive educational settings. *Pediatric Physical Therapy, 1*(2), 55–63.

Johnson, D., & Johnson, R. (1987). Research shows the benefit of adult cooperation. *Educational Leadership, 45*(3), 27–30.

Johnson, D.W., Johnson, R.T., Holubec, E.J., & Roy, P. (1984). *Circles of learning: Cooperation in the classroom.* Alexander, VA: Association for Supervision and Curriculum Development.

Johnson, R., & Johnson, D. (1981). Building friendships between handicapped and nonhandicapped students: Effects of cooperative and individualistic instruction. *American Educational Research Journal, 18,* 415–424.

Jorgensen, C., & Rudy, C. (1990). *I.N.S.T.E.P.P. project student inclusion checklist.* Durham, NH: Institute on Disability.

urally occur when two or more people have established friendships or relationships (Howes, 1983). The frequent interaction opportunities and close proximity of neighbors attending the same school facilitates not only the development of friendships but also the chance to acquire necessary social skills. In the accompanying, "Point to Ponder," Jeffrey and Cindy Strully have demonstrated the importance to children of having friends, as well as skills and competencies.

CURRICULAR STRATEGIES AND ADAPTATIONS

The goal of educational programs is to facilitate students to "be the most they can be." This statement has been articulated in many different ways and by many sources. In the main office of a junior high school in Boulder, CO, a mission statement is posted on the bulletin board that reads: "The Burbank Junior High School mission is to assist each student in developing academically, socially, physically, emotionally and aesthetically to his/her fullest potential as an individual" (Boulder Valley School District, 1988).

Such a mission statement is synonymous with the concept of "*criterion of ultimate functioning*" (Brown, Nietupski, & Hamre-Nietupski, 1976), which stated that educational programs should be directly related to skills expected of adults. This criterion and the Burbank Junior High School's mission statement essentially challenge educators to prepare students for the "real world." Both special and regular educational systems attempt to challenge their respective students to participate together in the same world. However, in special education these educational efforts have often been provided in segregated or separated settings, which do not allow students to practice living and learning together. Duplication of educational efforts into special and regular categories is unnecessary (Stainback & Stainback, 1984). Since the goal and mission for all students is the same, providing education for all students together in integrated neighborhood schools is not only possible but preferable.

Specific services and interventions should be based upon a *student's educational need*. Unfortunately, educational interventions for students defined as disabled are often based upon their disability label rather than their educational need. For example, a student with a severe disability is generally assigned to a teacher for the "severely handicapped." This assignment may not be appropriate because it does not include: 1) identification of the students needs or 2) identification of the teacher's specific expertise. Students' overall needs must be assessed and identified before decisions about specific programs and objectives are identified. In addition, these decisions must include the most effective strategies for educating the student and meeting these objectives within the general education classroom.

There is often a mystique associated with the specialized skills and strategies of a teacher trained in special education. However, most approaches included in special education training programs are also effective for "regular" education students. By the same token, specific strategies included in general education training programs can and have been effective in teaching all children, including those assigned a disability label. For example, special educators work on promoting different skills within a similar activity for students labeled as disabled. Regular educators work on promoting different levels of information within a similar activity for students at different academic levels. In the typical elementary school classroom, students are already working on several different grade levels in, for example, reading or math. The major point is that *good teaching is good teaching, and both systems of education have much to offer each other.* Specific decisions for location, types of services, and educational programs for all students should be determined according to students' unique interests, needs, and capabilities. The teaching also should occur alongside the students' neighbors and friends. The educational goals of every student aim toward maximizing his or her potential in the vocational, recreation/leisure, domestic, and community domains of life. Within those broad domains, educational goals and achievements will vary according to each student's needs. For example, a vocational goal for one student might require that she learn to program a computer, while another student's vocational goal might be that he enter a mailing list on the same computer. Stated another way, it is not necessary for students to have the exact same goals and ability levels to be educated in the same location.

Special education services have included, by virtue of the federal mandate, *individualized* education programs (IEPs) for each student. Given that students with a disability label, like all other students, have unique and varied learning styles, strengths, and weaknesses, strategies and objectives must be individually identified. Such an approach has allowed for the determination and development of an individualized education program for a student, considering his or her strengths and weaknesses. This approach is also used in general education, not because of a federal mandate, but because it is an effective way to approach the development of the curriculum and teaching of all students. Although the specificity of such individualization may not exactly reflect the individualization efforts in special education, the basic principle is the same.

Adelman and Taylor (1983) have articulated this principle further in calling for a personalized curriculum. An individualized curriculum suggests individual placement on a standard curriculum based upon developmental status and actual achievement level. A personalized curriculum, however, takes into account noncognitive factors as well and allows for creation of curriculum and materials that may be necessary to accommodate the individuality of each student. A tremendous advantage of merging the expertise, skills, and strengths of special and regular education is the potential to develop and use personalized approaches for all students to facilitate their learning. A personalized approach to educational curriculum development also allows teachers to merge their own expertise and interests to enhance the variety of curricular options.

The personalized curriculum approach does not imply that school districts cannot or should not develop districtwide objec-

Point to Ponder

The division of students into groups and tracks assumed to ensure considerable likeness in attainment is a meat ax approach to problems requiring much more sensitive curricular and pedagogical approaches. (Goodlad, 1984)

CHAPTER 11

Educational and Curricular Adaptations

Mary A. Falvey, Jennifer Coots,
Katherine D. Bishop, and Marquita Grenot-Scheyer

Throughout history, the challenge to educators has been, and continues to be, the development and facilitation of curricular and instructional options allowing for the education of all students in the most appropriate and beneficial manner. This chapter discusses issues and strategies related to curricular design and adaptations that allow for *all* students to participate in the general education program. Due to the limitations of a single chapter, the authors have chosen to address some of the general strategies that have application across the majority of curriculum areas and ages. Specific examples are included for all strategies to demonstrate their application.

Previous chapters in this book have clearly established the need for the development of educational systems that include *all* students in the same educational setting. Clearly, research has demonstrated positive effects of programs that integrate students of varying abilities and characteristics (Johnson, Johnson, DeWeerdt, Lyons, & Zaidman, 1987; Rynders, Johnson, Johnson, & Schmidt, 1980; Strain, 1983; Strain & Kerr, 1981; Voeltz, 1980). There are also basic values that drive the educational system to create schools and opportunities that include *all* students. While research can assist us in creating the most effective schools and educational strategies, the decision to develop such integrated educational programs is a value decision based upon a belief in equal access and opportunity.

LOCATION OF SCHOOL ATTENDANCE

Typically, public school students in general education attend their neighborhood schools with children who live in the same neighborhood. Until recently, some students defined as disabled have had little opportunity to attend school with their neighborhood peers. Parents of such students must still in many cases argue for their son or daughter's basic right to be educated in their neighborhood school alongside their friends and peers.

Decisions to place all students in homogeneous segregated settings for their education have emphasized the differences rather than the similarities between formerly segregated students and their peers. Promoting differences in educational services only perpetuates isolation and segregation throughout the community. The service delivery model that removes students from their neighborhood schools and/or the regular education classroom for the sake of spe-

Falvey, M.A., Coots, J., Bishop, K.D. & Grenot-Scheyer, M. (1989).
Educational & Curricular Adaptations. In S. Stainback, W. Stainbac
& M. Forest (Eds). Educating All Students in the Mainstream of
Regular Education (pp. 143-157). Maryland Brooks Publishing
P.O. Box 10624 Baltimore, MD. 21285

cialized services seems untenable when one considers the enormous importance of developing friendships that will lead to integration and inclusion throughout the community (see Chapter 5 in this volume).

The implications of removing students from their neighborhood are dramatic. Based upon a substantial body of research, "typical" children and adolescents are more likely to have and maintain friendships only if they have frequent opportunities to interact with others (Hartup, 1975; Howes, 1983). Interaction opportunities are generally achieved when people, particularly children, are in close proximity to one another. For many of us, friendships formed during the elementary, junior, and high school years due to close proximity and frequent interaction opportunities with peers have endured and are essential in our personal support systems as adults. In addition to developing a personal support system, numerous social skills for social competence are acquired during and throughout relational interactions. Many of us measure the quality of our lives in terms of friends and what they mean to us. Shared support and interactions with friends are essential to one's overall sense of worth, belonging, and well-being.

While educational programs must be designed to foster basic skills and academic competencies, they also should be designed such that opportunities for the development of friendships are available. For all students, the skills necessary to interact with others and "get along" in a community are acquired through interactions and relationships. Examples of such skills are initiation, thoughtful actions, positive interaction style, good listening, and sharing belongings and feelings (Asher, Oden, & Gottman, 1977). Friendships provide opportunities to develop skills that are best learned and/or best taught through the interactions that nat-

Point to Ponder

Our daughter, Shawntell, is not going to one day wake up with all of the competencies and skills that she needs in order to live independently. The reality is that we have been working on teaching Shawntell to use the bathroom for the last nine years. At this point in time, Shawntell is approximately 58% toilet trained. This is a significant increase in her accuracy, but Shawntell may never achieve complete success. The same is true for lots of other areas such as eating independently, walking, and communicating. Though Shawntell has learned important things and will continue to do so, the issue that we face is, will the skills our daughter has learned keep her in the community? The answer, we are afraid, is no!

Yet, imagine if you will, that she did achieve all of these competencies, would that make everything perfect? Again, the answer is no! One's ability to know things or master skills is not the litmus test on capability to be an active member of your community and to have friends. What matters, we believe, is trying to be the best person you can and having people accept you for who you are, with all of your strengths and weaknesses. If we can accept people for who they are and not for who we want them to be, our communities will have moved a considerable distance. In the final analysis, whether or not Shawntell obtains all the competencies and skills in the world, it really isn't all that significant. What is important is being cared about by another human being. If Shawntell is really going to be an integral member of her community, she will need to rely on her friends who want to be involved with her because they are her friends. (Strully & Strully, 1985, pp. 7–8)

gram quality indicators in educational services for students with severe disabilities. *Journal of The Association for Persons with Severe Handicaps, 12*, 251–263.

Osguthorpe, R.T., & Scruggs, T.E. (1986). Special education students as tutors: A review and analysis. *Remedial and Special Education, 7*(4), 15–26.

Perske, R., & Perske, M. (1988). *Circles of friends: People with disabilities and their friends enrich the lives of one another*. Nashville: Abingdon Press.

Pugach, M. (1988). Special education as a constraint on teacher education reform. *Journal of Teacher Education, May–June*, 52–59.

Rollingsford Elementary School Merit List. (1990, April 20). *Foster's Daily Democrat*, Dover, New Hampshire.

Sapon-Shevin, M. (1987). The national education reports and special education: Implications for students. *Exceptional Children, 53*, 300–307.

Sapon-Shevin, M. (1990). Student support through cooperative learning. In W. Stainback & S. Stainback (Eds.), *Support networks for inclusive schooling: Interdependent integrated education* (pp. 65–79). Baltimore: Paul H. Brookes Publishing Co.

Sarason, S. (1982). *The culture of the school and the problem of change*. Boston: Allyn & Bacon.

Slavin, R.E. (1983). *Cooperative learning*. New York: Longman.

Slavin, R.E. (1987). Ability grouping and student achievement in elementary school: A best-evidence synthesis. *Review of Educational Research, 57*, 293–336.

Stainback, S., & Stainback, W. (1989). No more teachers of students with severe handicaps. *TASH Newsletter, 15*, 9.

Stainback, W., & Stainback, S. (Eds.). (1990). *Support networks for inclusive schooling: Interdependent integrated education*. Baltimore: Paul H. Brookes Publishing Co.

Stainback, S., Stainback, W., & Forest, M. (Eds.). (1989). *Educating all students in the mainstream of regular education*. Baltimore: Paul H. Brookes Publishing Co.

Sternat, J., Messina, R., Nietupski, J., Lyon, S., & Brown, L. (1977). Occupational and physical therapy services for severely handicapped students: Toward a naturalized public school delivery model. In E. Sontag, J. Smith, & N. Certo (Eds.), *Educational programming for the severely and profoundly handicapped* (pp. 263–278). Reston, VA: Council for Exceptional Children, Division of Mental Retardation.

Strully, J., & Strully, C. (1985). Friendship and our children. *Journal of The Association for Persons with Severe Handicaps, 10*, 224–227.

Strully, J.L., & Strully, C.F. (1989). Friendships as an educational goal. In S. Stainback, W. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of regular education* (pp. 59–68). Baltimore: Paul H. Brookes Publishing Co.

Vandercook, T., York, J., & Forest, M. (1989). The McGill Action Planning System (MAPS): A strategy for building the vision. *Journal of The Association for Persons with Severe Handicaps, 14*, 205–215.

Villa, R., & Thousand, J. (1988). Enhancing success in heterogeneous classrooms and schools: The power of partnership. *Teacher Education and Special Education, 11*, 144–153.

2.275

Voeltz, L.M. (1980). Children's attitudes toward handicapped peers. *American Journal of Mental Deficiency, 84*, 455–464.

Voeltz, L.M. (1982). Effects of structured interactions with severely handicapped peers on children's attitudes. *American Journal of Mental Deficiency, 86*, 380–390.

Walberg, H.J., & Wang, M.C. (1987). Effective educational practices and provisions for individual differences. In M.C. Wang, M.C. Reynolds, & H.J. Walberg (Eds.), *Handbook of special education: Research and practice, Vol. 1. Learner characteristics and adaptive education* (pp. 113–128). Oxford, England: Pergamon.

Wang, M.C., Gennari, P., & Waxman, H.C. (1985). The Adaptive Learning Environments Model: Design, implementation, and effects. In M.C. Wang & H.J. Walberg (Eds.), *Adapting instruction to individual differences* (pp. 191–235). Berkeley, CA: McCutchan.

Wansart, W.L. (1988). The student with learning disabilities in a writing process classroom: a case study. *Reading, Writing and Learning Disabilities, 4*, 311–319.

Wolfensberger, W. (1972). *The principle of normalization in human services*. Toronto, Ontario: National Institute on Mental Retardation.

York, J., Vandercook, T., Heise-Neff, C., & Caughey, E. (1989). Does an "integration facilitator" facilitate integration? In J. York, T. Vandercook, C. Macdonald, & S. Wolff (Eds.), *Strategies for full inclusion* (pp. 121–122). Minneapolis: University of Minnesota, Institute on Community Integration.

Ysseldyke, J., & Christenson, S. (1986). *The instructional environment scale*. Austin: PRO-ED.

tives. On the contrary, the approach underscores the importance of developing a well-articulated set of objectives to be taught/learned in the schools by all students, while the specific skills identified to reach the objectives would be individualized. Thus, for example, all students would be taught vocational skills, but the particular vocational skills taught may vary from student to student. Personalization would result in modifying and/or adapting the teaching methods for an individual student based upon his or her needs. Many students may benefit from systematic attention to differing individual needs. As evidenced by the growing dropout rate in many schools, education for all students must be expanded to teach students the skills that are viewed by students and adults as the most useful for ultimate functioning in their communities. Some students may claim that technical vocational skills are a priority for them, while others may perceive a need to be in advanced academic programs. All students will need to be able to access their community independently, some by driving their own cars, others by using community buses, walking, or bicycling. By adapting all educational services currently available to meet the variety of students' needs, the overall goals of education can be met most effectively.

In the past, educational systems have created arbitrary criteria for inclusion and exclusion in the various aspects of educational service delivery. For example, in the 1960s, children and adolescents often could not go to school unless they were toilet trained, could feed themselves, walk independently, talk, and so on. Since the passage of Public Law 94-142, the Education for all Handicapped Children Act, districts have adopted a zero-rejection philosophy and have therefore provided services for students who did not possess all of those skills.

Since then, educators, families, and communities have developed segregated and self-contained educational programs for these students. The students' participation in segregated programs was contingent upon the development of adaptations and modifications. It seems reasonable that the basic premise behind the *principle of partial participation* (Baumgart et al., 1982) should be used to include these same students in general education. Simply put, this principle states: It is better to at least partially participate than to be denied access to an event, activity, setting or other opportunity. This principle could assist in the development and creation of modifications and/or adaptations that would facilitate the inclusion of all students in general education. This principle does not imply the lowering of standards in a well-thought-out and relevant curriculum in general education. However, it does imply that the development or creation of adaptations be considered so that students of varying ability levels can participate and benefit from the educational programs. Some students may never acquire the skills to be independent in a task or an activity; however, teachers must encourage their participation to whatever degree possible.

Often when conceptualizing adaptations, the development and utilization of materials and devices receive the primary attention (Bishop & Falvey, 1986). Baumgart et al. (1982) have expanded the concept of adaptations to encompass:

1. Adapting skill sequences—changing the normal order of tasks (e.g., a student bypasses learning multiplication tables and switches to learning to use a calculator to solve problems)

2. Adapting rules—discarding or creating different rules to allow greater participation (e.g., allowing a student to throw a baseball while at bat during a game rather then hitting the ball)
3. Utilizing personal assistance—utilizing others to accomplish a task (e.g., using partners to complete an art project)
4. Facilitating social/attitudinal changes—creating an impact on the values, beliefs, and/or assumptions of neighborhoods, schools, and community members (e.g., supplementing the state-adopted materials to teach a social studies lesson by using materials that include role models of adults with and without disabilities)
5. Creating materials and/or devices that assist students in completing or participating in activities (e.g., a student who cannot read because of a vision impairment, uses a "talking" book or cassette tape instead of reading *Moby Dick*)

Teachers in general education make a practice of adapting materials or developing new ones to make concepts more easily understood by the students in their classes. Nonhandicapped students will benefit equally from this expanded concept of adaptations. Table 1 contains a number of examples of adaptations demonstrating how students at different age levels and with varying abilities and objectives can participate in the general education program as well as approach specific lessons. The adaptations described are similar to adaptations made by teachers every day in objectives and materials. It could truly be challenging to adapt curricular programs to meet the individual needs of an entire class of students. In all likelihood, however, groups of students will share the same objectives, so that each student in the class will not have different objectives for specific lessons. However, there are programs available that have been developed to allow for individualized instruction. The authors have observed numerous teachers who have successfully adapted instructional programs in their classrooms to accommodate students with varying abilities and characteristics, demonstrating that adaptation of curriculum for specific activities is possible.

EFFECTIVE TEACHING STRATEGIES

In addition to utilizing specific adaptations, teachers must examine specific teaching strategies to promote greater learning and participation. Recent research has focused on identifying descriptors of effective teaching strategies. These strategies provide a framework within which teachers can effectively adapt curricula to meet a wide variety of curricular needs in the regular classroom. These strategies acknowledge the fact that classrooms include students with a wide variety of individual needs, whether those students are labeled as disabled or not. The bases for effective teaching strategies as delineated by Jones, Friedman, Tinzman, and Cox (1984) are included in the following discussion.

Components of Effective Teaching Strategies

Jones et al. (1984) delineate six components of effective teaching strategies. First, teachers must provide an overview of what is to be taught, as well as cues that include cautions concerning probable errors. To do this, teachers might give verbal instructions as well as pictorial directions as to how skills can be used. Peers can assist each other in reviewing and understanding the purpose of the lesson.

Table 1. Adaptations for students with varying abilities and at different age levels

Goal	Objectives/activities	Materials/adaptation
	Age Level: Preschool	
Subject: Snack		
To eat a snack	Student 1 The student will eat a graham cracker and juice without dropping or spilling.	Graham crackers Cup Juice
	Student 2 The student will move jaw up and down after food is placed in mouth.	
Subject: Toileting		
To use the toilet appropriately	Student 1 The student will flush the toilet and pull up pants when he or she is finished.	Accessible bathroom Potty chairs
	Student 2 When placed upon the toilet, the student will urinate within 3 minutes.	
Subject: Music		
Participate in the group activity of singing	Student 1 The student will sing and do hand movements to the songs "Wheels on the bus," "Put your hands up in the air," and "I'm a little teapot" with the group.	Pictures Records or tapes Record or tapeplayers
	Student 2 The student will stay in the group area for at least one song.	
	Student 3 The student will activate tape recorder with switch.	
	Age Level: Elementary	
Subject: Art		
Design a collage	Student 1 Students with an assigned partner will complete a collage during the specified time.	Paper Objects Glue Glue brush
	Student 2 The student glues, while other student puts the objects on.	
	Student 3 The student points to desired objects; the other student glues them on.	

(continued)

Table 1. (continued)

Goal	Objectives/activities	Materials/adaptation
Subject: Science		
Classify vertebrates into 5 major groups	Student 1 The student will verbally identify and classify one given vertebrate into each of the five groups.	Actual animal Pictures Word cards Braille cards
	Student 2 The student will identify one characteristic of given animal.	
	Student 3 The student will classify animals using braille cards.	
Subject: Reading		
To read and comprehend *The Little Engine that Could*	Student 1 The student will read pages 1–11 in the book and then correctly place in order 10 sentence strips from the story.	Story Sentence strips Sentence strips with pictures Head pointer for student as needed
	Student 2 The student will point to pictures and orally state the components of a sentence with reading group.	
	Student 3 The student will correctly answer 10 basic questions by pointing to pictures on sentence strips with head pointer.	
Subject: Math		
To increase accuracy of computational skills	Student 1 Student will complete five 2-digit multiplication problems.	Worksheets Calculators Timer
	Student 2 The student will use calculator to compute five 2-digit multiplication problems.	
	Student 3 The student will operate as lesson facilitator by handing out worksheets to all students and accurately operating the timer for timed drills.	
	Age Level: Junior High	
Subject: Physical Education		
Perform the Virginia Reel	Student 1 The student will, with assigned partners, dance the Virginia Reel, following directions.	Music

(continued)

Table 1. (continued)

Goal	Objectives/activities	Materials/adaptation
	Student 2 The student will independently push his or her wheelchair the length of the line during dance.	
Subject: Typing during Computer Class		
Type a letter	Student 1 Within a given time period, the student will type a letter. Student 2 The student will type a portion of a given letter from handwritten copy. Student 3 The student will type the heading for a letter.	Standard computer with braille template or computer with voice output Typewriter with key guards to prevent hitting the wrong key
	Age Level: High School	
Subject: Career Education		
Experience working in the community	Student 1 The student will work as a clerk in the newsroom of the local paper. Student 2 The student will ride public bus independently to and from work. Student 3 The student will operate stamp machine in the subscription department.	Work permit Job coach Bus pass Adapted stamp machine
Subject: Family Living		
Use a checkbook	Student 1 The student will write checks and fill in the register appropriately, maintaining an accurate balance. Student 2 The student will sign his or her name using a signature template after the check is written and the math is completed. Student 3 The student will use a signature stamp after the check is written and the math is completed.	Signature template Signature stamp

Second, teachers must provide a readiness/preparatory set of activities that emphasizes the linking of new information to prior knowledge and the preteaching of difficult vocabulary. To apply this, a teacher might relate what is being taught today to what was taught yesterday, as well as the application of the topic, so that skills are not learned in isolation. For example, lessons on weather relate to lessons about clothing worn in different climates: "Yesterday it was cold, so we wore coats. Today it is clear, so we took our coats off."

Third, emphasis must be placed on examples and applications of concepts, principles, and vocabulary terms. This may mean that a one-to-one correspondence lesson is conducted along with putting out cartons of milk for snack time, or measurement lessons are taught while constructing a set for a drama production.

The fourth strategy identified by Jones et al. (1984) is that vocabulary learning and/or metacognitive strategies must be taught. Therefore, key sequence vocabulary for a job might be reviewed when a student goes to a job, in conjunction with a list of tasks to be done before, during, and after work. Students may also learn self-monitoring techniques to cue themselves to provide quality work.

Fifth, students must engage in guided practice and then practice independently. To do this a teacher may provide instruction for playing games on the playground, then ask students to pair up with classmates to practice the game. Finally, the teacher monitors student comprehension, then provides continuous feedback to facilitate correct learning and also provides positive reinforcement. This may require the teacher to ask questions of the group and of specific individuals or to set up problem-solving activities, watching for students to perform skills as evidence that the skill is mastered.

Jones et al. (1984) suggest that all of the preceding components must be included in any type of instruction. These strategies should be employed with whatever educational model teachers implement and with whatever curricular material is being taught in order to assist students in mastering instructional objectives.

Heterogeneously Grouped Classrooms

Another effective teaching strategy is the way in which students are grouped. The separateness of the two systems, regular and special education, often has resulted in homogeneous grouping (i.e., grouping of students by ability levels or according to whether they were labeled as disabled or nondisabled). More recently, attempts to merge special and regular education programs have resulted in *heterogeneously grouped classrooms* (i.e., classes containing students with varying abilities and characteristics). The effectiveness of the grouping seems to depend on how teaching methods are implemented. Students grouped heterogeneously with the most effective teaching strategies have specific advantages over those grouped homogeneously (e.g., acceptance of individual differences, learning a new skill such as sign language or Spanish, learning about different cultures from firsthand experiences). Therefore, based upon the benefits to be gained by students who are heterogeneously grouped, it is necessary to continue to identify those strategies that can be utilized by teachers to meet a wide variety of curricular needs in a heterogeneously organized classroom. Richer learning environments include children of varying abilities, backgrounds, and cultures. However, teachers need to provide systematic instruction and varied groupings within classrooms to be sure that all students benefit.

Cooperative Learning Strategies

Cooperative learning strategies have proven effective in assisting teachers to meet a wide variety of curricular needs while fostering positive social relationships between students of differing backgrounds and abilities (Johnson & Johnson. 1981: Johnson. Johnson. Warring. & Maruyama. 1986: Yager. Johnson. Johnson. & Snider. 1985). Traditional classroom models have focused on individualistic and/or competitive learning experiences. The skills needed to function in competitive or individually paced learning experiences may both be critical for future independent functioning. However. the ability to cooperate and collaborate with other persons is an equally essential skill that can assist in more effective interdependent functioning at school. home. and on the job. *Interdependency* is defined as teaching students to access others in supportive and/or cooperative ways in performing a task.

The procedures delineated by Johnson. Johnson. Holubec. and Roy (1984) need to be incorporated into the structuring of cooperative learning experiences. These include clearly specifying instructional objectives. Also. the assignment of students to groups and the room arrangement should be done in a manner that facilitates cooperation (e.g.. include students with differing and complementary needs in groups together. place desks. chairs. and wheelchairs so that face-to-face interaction between students is promoted). Materials. tasks. goals. and roles must be assigned and structured to promote interdependence within the group while also allowing for individual accountability. The goals. criteria for success. and desired behaviors must be clearly specified. and group collaboration must be continually monitored. Initially. the skills necessary to effectively collaborate. such as "Everyone does a job" or "Giving directions without being bossy." will most likely need to be taught to group members and then continually evaluated and retaught as needed.

The cooperative structuring of activities can allow teachers the opportunity to adapt curriculum to meet a wide variety of needs. as mentioned earlier. For instance. for a spelling lesson. each student can have a different list of words. a list of words in braille. a list of learned signs. or picture communication booklet cards that they must correctly identify while the group works cooperatively to ensure that all students meet their individual objectives. As another example. students can work together on a single group report such as a shopping list reflecting the lowest overall prices on specified items found in the food section in the weekly paper. Some or all of the group can then go to the store to purchase the items on the specified list and then use the items for a classroom cooking activity or take the items home as desired. Also. in a home economics class. students could work on a group project involving varying abilities to sew: some students might sew complicated stitches using a sewing machine while others might use a needle and thread to attach a button.

Mastery Learning

Another effective teaching method involves *mastery learning strategies* or *outcomes-based educational strategies*. which combine small-group and individualized instruction. These strategies have also been effective in improving the school performance of a wide variety of students. and give teachers the tools necessary to adapt curriculum to meet a diversity of needs (Hyman & Cohen. 1979: Rubin & Spady. 1984). The steps involved in implementing mastery learning strategies include:

1. Define the specific objective for each student; note that students likely will have different objectives.
2. Teach the skill or concept in the objective.
3. Evaluate mastery of the objective using a criterion-referenced test.
4. Provide additional instruction for those who have not met the objective.
5. Retest this group.

By employing this methodology, general education teachers can teach a skill or concept to the class or a small group, then provide additional, more individualized instruction to those students who did not master the skill or objective.

Peer Instruction

Peer instruction or tutoring is another effective teaching strategy (Allen & Boraks, 1978; Dineen, Clark, & Risley, 1977; Kohl, Moses, & Stettner-Eaton, 1983; and McHale, Olley, Marcus, & Simeonsson, 1981). For example, a high school student could demonstrate for a peer the "cool" way to comb hair. Or a middle school student could help a peer to make a choice and play with a board game. For peer instruction to be effective, it is important that the peers volunteer to engage in the instruction, and further, that the classroom teacher monitor the instruction to determine if the instruction has occurred (Heron & Harris, 1987). As suggested by Grenot-Scheyer and Falvey (1986), caution must be used when implementing peer instruction. It is critical that all students have the opportunity to both provide and receive instruction, and that certain students are not always put in the position of being the receiver.

ROLE OF THE TEACHER

The foregoing discussion of the necessary changes in curriculum and teaching strategies that will provide the most effective educational services to all students makes apparent that the role of the teacher will change. As a result of a variety of educational reforms (Stainback & Stainback, 1984), teachers now and in the future have the opportunity to work with students who bring a diverse mixture of contributions and challenges to the classroom. Providing education for all students—including those with a variety of learning, communication, social, cultural, and physical characteristics—within regular classrooms may require different roles for teachers. The two primary methods for delivering educational services that will define the new roles are *consulting teacher* and *team teaching*. Certainly these two roles are not new to the educational system; however, they may be new for teachers who have exclusively served as "special" education teachers.

Point to Ponder

We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven't done it so far. (Edmonds, 1979, p. 29)

Consultant Teacher

Classroom teachers may be assisted and supported by *consultant teachers* who bring a particular expertise to the learning. A consultant may be viewed as a teacher who has expertise in a particular area or areas. The resources used to separate students with disabilities in special education classrooms with special education teachers should be redirected to hire consultants with varying expertise. Following are examples of consultant teachers who can support the classroom teacher:

Communication consultant
Physical education consultant
Bilingual consultant
Reading consultant
Orientation and mobility consultant
Computer consultant
Augmentative communication consultant
Low-vision or braille consultant
Interaction consultant
Community-based instruction consultant

Consultant strategies can be direct or indirect for both students or teachers. For example, the computer consultant could conduct a language arts activity with a small group of elementary-aged students. Within this small group, some of the students could be working on sentence development using a keyboard, while the student with severe cerebral palsy is learning to activate and operate the computer utilizing a chin switch. In another example, the computer consultant could facilitate an interactive game on the computer among several junior high school students. For all the students, including a student labeled as autistic, this activity would provide an age-appropriate opportunity to work on initiating skills within a peer group. As a third example, the community-based instruction (CBI) consultant might provide direct instruction to students in natural community environments (Falvey, 1986). In coordination with the classroom teacher, the CBI consultant could provide instruction for a group of three students who need to learn to access and utilize their neighborhood grocery store. The consultant might assist one student to compare the value of a generic brand of laundry detergent and a higher-priced brand name detergent. With a second student, the consultant might provide a series of instructional prompts to facilitate this student to scan a row of soup cans and direct his eye gaze to the desired can. The consultant could assist a third student to respond to the natural social interactions of grocery store employees and community members. To provide a fourth example, the interaction consultant could provide specific strategies to the classroom teacher on how best to facilitate positive social interaction among the students in the classroom. As a fifth example, the augmentative communication consultant could assist a small group of students to become familiar with and respond to an electronic communication board that a peer uses to communicate. Finally, as a sixth example, the braille consultant might assist the family of a blind student to access local community resources and materials for individuals who are blind.

Team Teaching

Team teaching arrangements can be developed between the regular education teacher and the previously identified special education teacher. That is, students formerly served by the special education teacher exclusively would be assigned to regular education classrooms in natural proportions (i.e., the percentage of former "special" education students in any one classroom would reflect the percentage of such students in the general community.) A team composed of a regular educator and former "special" educator (who is now a teacher with expertise in a specific area like community-based instruction) would share curriculum and instructional responsibilities. In this way, the strengths of each teacher can be accessed by all students and the teachers themselves are able to share and learn from each other's abilities. Moreover, through teaming, teachers can provide student groupings that create the benefits of heterogeneity as described earlier. Team teachers also have the support of another professional who knows each student well and can provide specific strategies and on-the-spot assistance and problem solving.

Although the role of both special and regular educators will change to facilitate a single model of service delivery, the changes should serve to enhance each educator's expertise. The changing roles allow for support, creativity, and a variety of teaching opportunities. Most of all, the changing roles will allow for all students to receive the best education that all services and areas of expertise can provide.

SUMMARY

There are several key components to successful implementation of a single service delivery model for all students in public school settings. First, students should attend schools in their local neighborhoods in classrooms grouped according to chronological ages. Second, curricular strategies and adaptations should be planned in a manner that allows for inclusion and participation of students who have a variety of strengths and deficits. Third, effective teaching strategies such as cooperative learning and mastery learning can be utilized to enhance skill acquisition for all students. Finally, the role of the teacher must shift to accommodate the variety of students' needs and allow for a sharing of expertise and problem solving.

This is not an easy challenge. However, the concept of merging special and regular education such that all students win is extremely powerful and positive. This chapter has provided strategies that may serve as a foundation for such service delivery. It is important to note that the purpose of providing these strategies is to serve only as a reference point from which teachers and administrators can create models and strategies that truly meet the needs of all students in their communities in integrated, age appropriate, and personalized settings.

REFERENCES

Adelman, H., & Taylor, L. (1983). *Learning disabilities in perspective.* Glenview, IL: Scott, Foresman.

Allen, A.R., & Boraks, N. (1978). Peer tutoring: Putting it to the test. *Reading Teacher, 31,* 274–278.

Asher, S.R., Oden, S.L., & Gottman, J.M. (1977). Children's friendships in school settings. In L.G. Katz (Ed.), *Current topics in early childhood education, Vol. 1* (pp. 33–61). Norwood, NJ: Ablex.

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students.

Journal of the Association for the Severely Handicapped. *7*. 17–27.

Bishop. K.D. & Falvey. M.A. (1986). Motor skills. In M.A. Falvey. *Community-based curriculum: Instructional strategies for students with severe handicaps* (pp. 139–161). Baltimore: Paul H. Brookes Publishing Co.

Brown. L.. Nietupski. J.. & Hamre-Nietupski. S. (1976). The criterion of ultimate functioning and public school services for severely handicapped children. In M.A. Thomas (Ed.). *Hey. don't forget about me: Education's investment in the severely. profoundly. and multiply handicapped* (pp. 2–15). Reston. VA: Council for Exceptional Children.

Dineen. J.P.. Clark. H.P.. & Risley. T.R. (1977). Peer tutoring among elementary students: Education benefits to the tutor. *Journal of Applied Behavior Analysis*. *10*. 231–238.

Edmonds. R. (1979). Some schools work and more can. *Social Policy*. *9*(2). 28–32.

Falvey. M.A. (1986). *Community-based curriculum: Instructional strategies for students with severe handicaps*. Baltimore: Paul H. Brookes Publishing Co.

Goodlad. J. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.

Grenot-Scheyer. M.. & Falvey. M.A. (1986). Integration issues and strategies. In M.A. Falvey. *Community-based curriculum: Instructional strategies for students with severe handicaps* (pp. 217–234). Baltimore: Paul H. Brookes Publishing Co.

Hartup. W.W. (1975). The origins of friendship. In M. Lewis & L.A. Rosenblum (Eds.). *Friendships and peer relations* (pp. 11–27). New York: John Wiley & Sons.

Heron. T.E.. & Harris. K.C. (1987). *The educational consultant: Helping professionals. parents. and mainstreamed students*. Austin: PRO-ED.

Howes. C. (1983). Patterns of friendship. *Child development*. *54*. 1041–1053.

Hyman. J.S. & Cohen. S.A. (1979). Learning for mastery: Ten conclusions after 15 years and 3.000 schools. *Educational Leadership*. *27* 104–109.

Johnson. R.T.. & Johnson. D.W. (1981). Building friendships between handicapped and nonhandicapped students: Effects of cooperative and individualistic instruction. *American Educational Research Journal*. *18*. 415–423.

Johnson. R.. Johnson. D.W.. DeWeerdt. N.. Lyons. V.. & Zaidman. B. (1987). Integrating severely adaptively handicapped seventh grade students into constructive relationships with nonhandicapped peers in science class. *American Journal of Mental Deficiency*. *87*. 611–619.

Johnson. D.W.. Johnson. R.T.. Holubec. E.J.. & Roy. P. (1984). *Circles of learning: Cooperation in the classroom*. Alexander. VA: Association for Supervision and Curriculum Development.

Johnson. D.W.. Johnson. R.T.. Warring. D.. & Maruyama. G. (1986). Different cooperative learning procedures and cross handicap relationships. *Exceptional Children*. *53*. 247–252.

Jones. B.F.. Friedman. L.B.. Tinzman. M.. & Cox. B.E. (1984). Guidelines for instruction: Enriched mastery learning to improve comprehension. In D.U. Levine (Ed.). *Improving student achievement through mastery learning programs* (pp. 91–153). San Francisco: Jossey-Bass.

Kohl. F.L.. Moses. L.G.. & Stettner-Eaton. B.A. (1983). The results of teaching fifth and sixth graders to be instructional trainers with students who are severely handicapped. *Journal of the Association of the Severely Handicapped*. *8*. 32–40.

McHale. S.W.. Olley. J.G.. Marcus. L.M.. & Simeonsson. R.J. (1981). Nonhandicapped peers as tutors for autistic children. *American Journal of Mental Deficiency*. *85*(1). 18–24.

Rubin. S.E.. & Spady W.G. (1984). Achieving excellence through outcome-based instructional delivery. *Educational Leadership*. *41*. 37–44.

Rynders. J.E.. Johnson. R.T.. Johnson. D.W.. & Schmidt. B. (1980). Producing positive interactions among Down syndrome and nonhandicapped students through cooperative goal structuring. *American Journal of Mental Deficiency*. *85*. 268–273.

Stainback. W.. & Stainback. S. (1984). A rationale for the merger of special and regular education. *Exceptional Children*. *51*. 102–111.

Strain. P.S. (1983). Generalization of autistic children's social behavior change: Effects of developmentally integrated and segregated settings. *Analysis and Intervention in Developmental Disabilities*. *3*. 23–34.

Strain. P.S.. & Kerr. M.M. (1981). Modifying children's social withdrawal: Issues in assessment and clinical intervention. In M. Hersen. R.M. Eisler. & P.M. Miller (Eds.). *Progress in behavior modification. Vol. II* (pp. 203–249). New York: Academic Press.

Strully, J., & Strully, C. (1985). Teach your children. *Canadian Journal of Mental Retardation*, 35(4), 3–11.

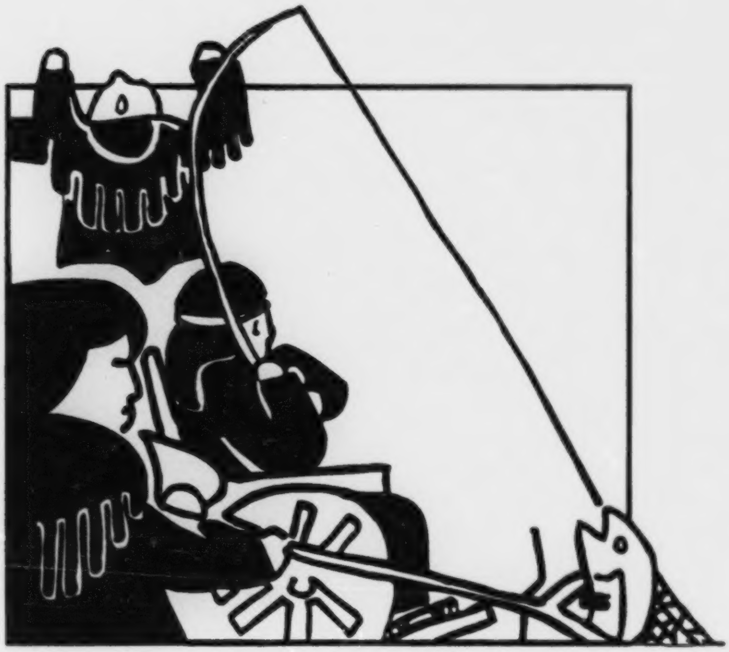
Voeltz, L.M. (1980). Children's attitudes toward handicapped peers. *American Journal of Mental Deficiency*, 84, 455–464.

Yager, S., Johnson, R.T., Johnson, D.W., & Snider, B. (1985). The effects of cooperative and individualistic learning experiences on positive and negative cross-handicap relationships. *Contemporary Educational Psychology*, 10, 127–138.

2.292

Section 10

Putting It All Together



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

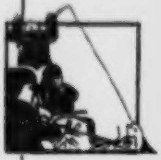
Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 10
PUTTING IT ALL TOGETHER

PURPOSE:



The purpose of this section will be to sit back and reflect on your learning and participation in the activities and assignments for this module. Teaching is constantly changing. It is never neat and tidy. We often have more questions than answers. This section provides some guidelines or heuristics that may enable you to analyze the curriculum changes that you have made this semester.

LEARNER OUTCOMES

1. Participants will gain information related to reviewing curriculum changes.
2. Participants will identify 5 questions to ask and things to look for to determine if a program is working effectively.
3. Participants will communicate information to other teachers regarding curriculum changes.

CONTENT FOCUS

HOW AND WHEN TO MAKE DECISIONS ON CHANGING LEARNING APPROACHES OR PROGRAMS.

Now that you have completed most of this module you will have had an opportunity to investigate more completely some full inclusion issues and strategies for increasing or improving the ways that you are involving and including a student who experiences a disability in your classroom. The videotapes that you have watched: "Kids Belong Together" and "With a Little Help from my friends" provided a model for both underlying curriculum issues as well as strategies for curriculum modifications. The activities and assignments connected with the module provided the format to practice some of the new ways to make curricular and instructional adaptations and modifications. This section will concentrate on decision issues related to when and how to make changes in your plan.

REMEMBER:

Some Pointers Related to Modifying Curriculum:

- Curriculum modification should be based on modifications to the regular education curriculum
- Curriculum modification should include decisions made by a team (e.g., regular and special education, parent, and others as appropriate)
- IEPs objectives should be activity based and represent functional outcomes

LOOK AT THE MODIFICATIONS THAT YOU HAVE MADE IN YOUR CURRICULUM TO ACCOMMODATE A STUDENT'S LEARNING

Complete the readings for this section and review Handouts #10.1-#10.8

Consider Handout #10.9: Communicating Teaching Plans. Think about a program that you have been implementing or a curriculum modification. If you were to jot down some information to share with someone else who may be teaching your class or running your program for the day, how would you respond?

Complete Handout #10.9

HANDOUT 10.1

Thinking Through Teaching

GOOD TEACHERS NEVER STOP ASKING THESE QUESTIONS:

- What is the student doing?
- Is the student doing what I planned? Why or why not?
- Is the student performing consistently? Why or Why not?
- Are there rough spots? Is it something I'm doing, the student is doing, or something else going on around us?
- How is the student confused? From the student's point of view, what sense does this make to them?
- How can I make it work better? What can I change about:
    - lesson or task design
    - physical environment
    - materials
    - presentation of materials
    - pacing
    - assistance
    - feedback
    - scheduling
    - voice tone
    - encouraging communication & choice
    - human dignity and respect

to enable the student to learn more efficiently?

- What would make the biggest difference, or give me the most useful information about whether or not what I have changed has made a difference?
- Did it help? Enough? How do I know?
- What should I do next?
- What does the community think and feel about the program?

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.2

"There are three main things you can do to help students learn to do things without depending on you to tell them what to do:

1. teach them what to pay attention to in the environment other than you;
2. give them just the right amount and kind of help and information; and,
3. give them feedback so they can do it right the next time."

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.3

GUIDELINES FOR TEACHING STUDENTS WHAT TO PAY ATTENTION TO:

1. First, identify the "natural cue," or the thing in the environment that should tell the student what to do.

2. Prompt the student to pay attention to that thing, or to the "relevant natural cues."

3. If you need to, figure out ways to highlight the thing the student needs to pay attention to. Another way of saying this is to "highlight the relevant features of the natural cue."

4. Teach a sample of the different variations of the thing in the environment that the student needs to pay attention to. Some people call this "selecting multiple examples," or "sampling a range of examples."

5. Reward the student for doing the right thing in response to the natural cue, or to the thing in the environment that should tell them what to do, unless just doing it seems enough to keep the student going.

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.4

GUIDELINES FOR GIVING JUST THE RIGHT AMOUNT AND KIND OF HELP

1. Know how the student learns best.

2. Identify the natural cues, or things in the environment you want the student to attend to in order to know what, when, and how to do something. (The teacher should be the most irrelevant cue).

3. Start by giving the student information that emphasizes the natural cue by making it more noticeable or focusing the student's attention on it.

4. Give just enough, but not too much information for the student to perform correctly without making a mistake.

5. Vary what kind, when, and how much, information to give each time, according to how the student seems to be doing.

6. Provide assistance as unobtrusively as possible.

7. Decrease the amount of information you give as quickly as you can while still making sure the student performs correctly without making a mistake.

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.5

GUIDELINES FOR EFFECTIVELY USING REINFORCEMENT

a. Be immediate.

b. Be clear and specific.

c. Be contingent. Reward only the things you intend to reward.

d. Be age and community-appropriate.

e. Watch to see if the student seems to feel reinforced.

f. Watch the effect on the student's behavior; if the behavior doesn't increase you haven't reinforced it.

g. Change the kind, amount, timing, quality, intensity, and schedule of reinforcement depending upon the student's responses.

Used by permission

(Jeanchild. L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene. OR: Specialized Training Program)

HANDOUT 10.6

GUIDELINES FOR GIVING FEEDBACK TO PREVENT MISTAKES

1. Don't wait for the mistake to happen.

2. Anticipate the mistake before it happens and highlight the natural cue that immediately precedes the student's mistake. Give whatever additional information is needed to help the student do it right with more help.

3. Reinforce their correct response at a slightly higher intensity.

4. Figure out why the student is making the mistake. What kind of mistake are they making, and why might it make sense from their perspective to do it that way?

5. Change the kind or amount of help you've been giving the student according to your analysis of the kind of mistake they've made.

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.7

GUIDELINES FOR GIVING FEEDBACK TO CORRECT UNEXPECTED MISTAKES

1. Stop.

2. Give specific feedback about the mistake.

3. Return to the natural cue.

4. Repeat with more assistance.

5. Reinforce correct response at slightly less intensity.

6. Make sure to relatively quickly give the student more opportunities to try again.

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.8

GUIDELINES FOR WHAT TO DO WHEN A STUDENT MAKES A MANIPULATION ERROR

Either:

1. Change how the student does the step, or,

2. Develop a prosthetic, or adaptive device, to help the student do the step more easily.

3. If the student is making simultaneous manipulation errors:

   - Teach one at a time

   - Physically guide one while fading your help for the other.

4. At first physically help the student if they are learning a motor task.

5. Increase positive feedback when the student does the step correctly.

Used by permission

(Jeanchild, L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene, OR: Specialized Training Program)

HANDOUT 10.9

COMMUNICATING TEACHING PLANS

Thinking about this program. this student. and especially this staff person's skills.

Individual Teaching Plan

Student(s): ______________________ Date: _______

Topic: ______________________

We are working with this because...

Do I need to explain the activity context?

Other related programs?

How it connects to the outside school?

Will this staff be able to visualize this student's competence?

Do they understand this student's preferences, motivations, and investment about this program?

Should I explain family preferences, motivations and investment in this program?

Here's what we are expecting. When you see this let me know right away.

How can I explain the goal of this instruction so this staff can visualize it?

How can I encourage this staff to fade their involvement?

Remember to gather:	Things will go better if you first...
List needed materials	Does this staff need to be reminded about • physical arrangements? • management of materials
Note only preparation of materials this staff might not thing about	Are there any antecedent routines. predicture cues that need to be emphasized for this staff?

Are there any general reminders about

- voice tone - task sequences
- pacing - interspersed requests
- feedback

Used by permission

(Jeanchild. L. & Ferguson D. 1991. Module 2a: Teaching: Strategies for supporting valuable learning outcomes. Eugene. OR: Specialized Training Program)

FOOD FOR THOUGHT

"Your role as a teacher is to watch what a student is doing, to figure out why they are doing those things in those ways, and then to give the student exactly the right kind and amount of information they need so that they can do what you are teaching without you"

(Jeanchild & Ferguson, 1991, p. 35).

OVERHEAD 10.1

ACTION AND ADVOCACY PLANNING

Action	Advocacy
Things I can change now	Things that I will need to advocate for
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

READINGS

Jeanchild. L. & Ferguson. D. (1991). Teaching: Strategies for supporting valuable learning outcomes (Module 2a). Eugene. Oregon: Specialized Training Program.

SECTION ASSIGNMENT

Assignment #1

In your reflective journal respond to the following issues/questions:

*what specific aspects of this module were the most helpful?

*how has this module helped you change your teaching?

*in what ways do you feel more comfortable with including a student who experiences a severe disability in your classroom?

*what problems still exist?

Assignment #2

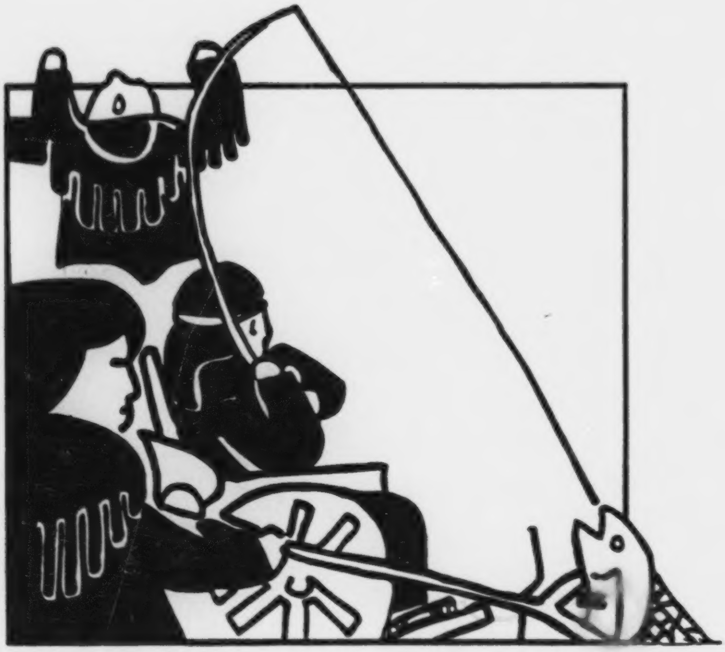
Think about changes that you would like to make in your classroom as a result of participating in this module. What changes can you make right now? Which changes will you need to advocate for? In other words, which of your changes will you need to have the support of others and/or might take more time? Jot these down on the **action and advocacy planning form** that is included in this module.

REFLECTIVE JOURNAL

Include your reactions to Assignment #1 and #2 in your journal.

References

References for Curriculum Modification and Instructional Adaption in Inclusive Classrooms Module



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

REFERENCES

Bogden. R. & Taylor. S. (1987). Conclusion: The next wave. In S.J. Taylor. D. Biklen. & J. Knoll (Eds.), Community integration for people with severe disabilities. (pp. 209-213). New York: Teacher's College Press

Edmonds. R. (1979). Some schools work and more can. Social Policy. 9 (5). pp. 25-29.

Falvey. M., Coots. J., Bishop. K., & Grenot-Scheyer. M. (1989). Educational an curricular adaptations. In S. Stainback. W. Stainback & M. Forst. (Eds.). Educating all students in the mainstream of regular education. p. 143-157. Baltimore: Paul H. Brookes.

Ferguson. D. & Baumgart. D., (1992). Partial participation revisited. Journal of the association fro persons with severe disabilities, 16(4). 218-227.

Ferguson. D., & Jeanchild, L. (1992). It's not a matter of method: Thinking about how to implement curricular decisions. In S. Stainback & W. Stainback, (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all students. (pp. 159-173). Baltimore: Paul H. Brookes.

Ferguson, P. & Asch, A. (1989). Lessons from life: Personal and parental perspectives on school, childhood, and disability. In D. Bilken, A. Ford, & D. Ferguson (Eds.), Disability and society (pp. 108-140). Chicago: National Society for the Study of Education

Ford, A., Davern, L. Schnorr, R. (1992). Inclusive education: "Making sense" of the curriculum. In S. Stainback & W. Stainback, (Eds), Curriculum considerations in inclusive classrooms: Facilitating learning for all students, (pp. 37-64). Baltimore: Paul H. Brookes.

Forest. M. & Lusthaus, E. (1989). The Kaleidoscope: Challenge to the Cascade. In M. Forest (Ed.), More Education/Integration (pp. 1-16) Downsview, Ontario: G. Allen Roeher Institute.

Forest, M. & Pearpoint. J. (1992). Putting all kids on the map. Educational Leadership, 2(50),p. 26-31.

Forest, M. (1989). It's about relationships. Toronto: Frontier College Press

Fox. T. & Williams, W. (1991). Implementing best practice guidelines for meeting the needs of all students in local schools. Burlington. VT: Center for Develpmental Disabilities.

REFERENCES

Giangreco. M. (1992). Curriculum in inclusive-oriented schools: Trends. Issues. Challenges. and Potential Solutions. In S. Stainback & W. Stainback. (Eds). Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes (pp. 19-36)

Goodlad. J. (1984). A place called school: Prospects for the future. New York: McGraw-Hill

Helmstetter. E. (1989). Curriculum for school-age students: The ecological model. In F. Brown & D. Lehr (Eds). Persons with profound disabilities: Issues & practice (pp. 239-264). Baltimore: Paul H. Brookes.

Jeanchild. L. & Ferguson. D. (1992). Teaching strategies for supporting valuable learning outcomes (Module 2c). Eugene. Oregon: Specialized Training Program

Jorgensen. C. M. (1992). Natural supports in inclusive schools: Curricular and teaching strategies. In J. Nisbet. (Ed), Natural supports in school, at work, and in the community for people with severe disabilities. (pp. 179-215). Baltimore: Paul H. Brookes.

Kuhn, N. (1992). The need to belong: Rediscovering Maslow's hierarchy of needs. In R. Villa, J. Thoesane, W. Stainback, and S. Stainback (Eds.), Restructuring for caring of effective education: An administrative guide to creating heterogeneous schools. Baltimore: Paul H. Brookes.

Oakes, J. & Lipton, M. (1990). Making the best of schools: A handbook for parents. teachers and policy makers. New Haven, CT: Yale University Press.

O'Brien. J. & Forest, M. (1989). Action for inclusion. (pp. 49-51). Ontario: Full Inclusion Press.

Orelove. F. & Sobsey, D. (1991). Curriculum and instruction. In F. Orelove & D. Sobsey (Eds), Educating children with multiple disabilities: A transdisciplinary approach (pp. 231-258). Baltimore: Paul H. Brookes.

Rainforth, B. York, J., & MacDonald, C. (1992). Collaborative instructional design. In B. Rainforth, J. York, & C. MacDonald, (Ed.), Collaborative teams for students with severe disabilities (pp. 179-202). Baltimore: Paul H. Brookes.

Sapon-Shevin. M. (1992). Celebrating diversity, creating community: Curriculum that honors and builds on differences. In S. Stainback & W. Stainback, (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all students (pp. 19-36). Baltimore: Paul H. Brookes.

REFERENCES

Snow. J., & Hasbury. D.. (1989). The Circle of Friends. In O'Brien. J.. & Forest. M. Action for inclusion (pp. 45-46). Ontario: Inclusion Press.

Snow. J. & Forest. M. (1989). Circles. In M. Forest (Ed.). More educational integration: A further collection of reading on the integration of children with mental handicaps into regular school systems (pp 169-176). Downsview. Ontario: G. Allen Roeher Institute

Stainback. S & Stainback. W. (1988). Educating all students with severe disabilities in regular classrooms. Teaching Exceptional Children. 21. 16-19.

Stainback. S. & Stainback. W. (1990). Facilitating support networks. In W. Stainback & S. Stainback, (Eds.), Support networks for inclusive schooling: Interdependent integrated education (pp. 3-24). Baltimore: Paul H. Brookes.

Stainback. S., Stainback, W.. Jackson. J.H. (1992). Toward inclusive classrooms. In S. Stainback & W. Stainback. (Eds.), Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes (pp. 3-18).

Strully, J. & Strully, C. (1985). Friendship and our children. Journal of the Association for Persons with Severe Handicaps, 10, 224-227

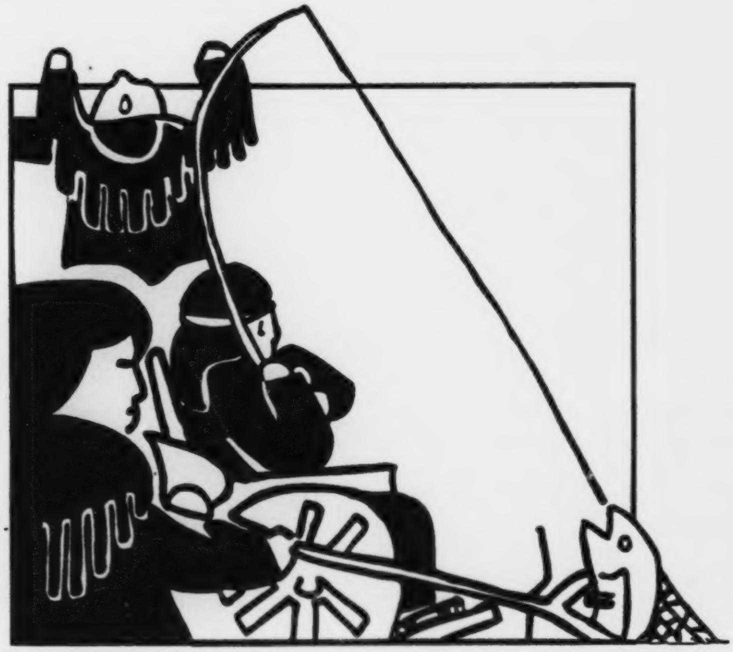
Vandercook, T. & York, J. (1990). A team approach to program development and support. In W. Stainback & S. Stainback (Eds.), Support networks for inclusive schooling: Interdependent integrated education (pp. 95-122) Baltimore: Paul H. Brookes..

Vandercook. T., York, J., & Forest. M. (1989). MAPS: A strategy for building the vision. In J. York, T. Vandercook. C. MacDonald. & S. Wolff. (Eds.). Strategies for inclusion. Minnesota: University of Minnesota. Institute on Community Integration.

York. J. & Vandercook. T. (1989). Strategies for achieving an integrated education for middle school aged learners with severe disabilities. Minneapolis: Institution on Community Integration.

APPENDIX

Curriculum Modification and Instructional Adaptation In Inclusive Schools



Module Developers:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

Marie Doyle, Ed.D.
Indiana University South Bend

Module Series Editor:

Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

APPENDIX
MODIFYING CURRICULUM VIA ACTIVITY ANALYSIS

Written by Lynn Mayberry

Grade Level: 5th (although this lesson was taken from a 5th grade science curriculum. it can be adapted to almost grade level.)

Subject Area: Science - Circuit Electricity

Lesson: The students will create a circuit electricity unit and describe the flow of electricity in their cooperative groups. The students will also list examples of circuit electricity.

Group Size: The students will be placed in groups of 3-4 (3 is the more desirable group size to maximize student participation but 4 will still work.) The classroom desks will be clustered together in groups of 3 or 4. The desks should be arranged in a triangular or square shape depending upon the number of students in the group. The idea is to have the students facing one another so they can communicate and work with each other.

Materials Needed for Each Group: Students will need a circuit, a light bulb, electrical wires, and a battery.

Assigning Roles: Each student in the group has an assigned role to foster positive interdependence. To successfully complete the activity, each student must fulfill his/her role and cooperate with his/her group members. The teacher should assign the students to groups. The groups should be heterogeneous. Students of varying abilities and needs should be grouped together.

1.) **Facilitator**: This student will make sure that every student participate in the activity and that everyone has an opportunity to learn how electricity flows through a circuit.

2.) **Recorder**: This student will record the group's observations about how electricity flows and what happens if the flow is disrupted.

3.) **Supply Manager**: This student is responsible for making sure the group has all the materials needed to do the activity.

Criteria for Group Success: Every student in the group fulfills his/her role and participates in the activity cooperatively. Every child should be able to create a circuit electricity unit and describe the flow of electricity (see below for individual modifications.). Each group will present a mini report describing their findings from the activity.

Individual Accountability: Each student is accountable for fulfilling his/her role and describing the flow of electricity through a circuit. The students will be called on during the Numbered Heads class activity to check for understanding. The students will now know what questions they will be asked so they must be prepared to answer all of them, although, they will still have their group to refer to. (See below for individual modifications and considerations.)

Student Involvement: All the students will be participating in the same science activity, although, some of the student will not have the same objectives for the lesson. But all the students have expectations to perform and participate. For example, one group in the class has a diverse group of students working together. In this group, there are three students participating in the activity in different capacities. Anna is an average student. She is motivated and works well with other students. Aaron is another member of the group. He has above average intelligence but he experiences severe learning disabilities that make it difficult for him to read and write. He also has difficulties with processing and remembering information. Aaron is motivated to learn but he is easily frustrated and will give up on a project if it presents too many problems for him to handle. The third member of the group is Melissa. Melissa experiences mental retardation. Melissa has difficulties communicating. She is working on making requests, comments, answering questions, and expressing feelings. Melissa also has difficulties with some fine and gross motor skills.

Within any classroom, there is a diversity of student experiences and ability levels. Despite this heterogeneity, it is possible for students to participate in the same classroom activities given that certain individual modifications are made to foster success for the students. In the case of the three students described above, Anna, Aaron, and Melissa can all participate in the electricity activity but each of them will have different objectives.

Anna's objective for the activity are to be able to create a circuit electricity unit, to explain how the flow of electricity works, give examples of circuit electricity, and to do an independent research project (the teacher serves as a resource and facilitator) on types of circuit electricity. Despite the fact that the activity does not present the same kind of challenge to Anna as it does to her group members, her involvement is still crucial for the success of the group. Anna's skills can be utilized by having her be the Recorder in the group because of her strong abilities in writing and organization. Although Anna is the Recorder in the group for this particular activity, other students should be given the opportunity to perform this role. This will be especially helpful to Aaron who has difficulties with writing and organization, although, Aaron could be the Recorder with modifications. The activity could be broken down into tasks and Aaron could be provided with a skeletal outline to help him organize his thoughts. Aaron could also record his ideas with a tape recorder as a prewriting activity or Anna could transcribe for him. Anna can help Aaron organize his thoughts and remember the information.

Aaron's objectives for the activity are to be able to show and explain how circuit electricity works. Aaron will also verbally give examples of things that use circuit electricity. Aaron's skills are utilized in the group by having him serve as the Facilitator, although, as already mentioned Aaron could serve as the Recorder with modifications which would help him develop his writing and organizational skills. Aaron's job is to make sure that everyone in the group has an opportunity to put the circuit system together. Aaron has strong verbal skills but he has difficulties remembering information. He likes to manipulate things and he demonstrates concepts well in this fashion. Instead of having Aaron tell or write about how circuit electricity works, he will be allowed to demonstrate how it works. Aaron's keen ability to manipulate objects will provide positive role modeling for Melissa who is working on becoming more adept at manipulating objects.

Melissa's objectives for the activity are to work on communication skills, to manipulate objects, and to demonstrate understanding that the circuit switch turns the electricity on and off. Melissa serves as the Supply Manager for the group. Melissa is provided with a picture list of the materials the group needs. Plus, the other groups' Supply Managers serve as role models for Melissa when she is collecting materials for the group. Melissa is working on developing her manipulation of objects. As the Supply Manager, Melissa will work on grasping and releasing objects. She will also have an opportunity to manipulate the parts of the circuit by following the lead of her group members. Melissa also has the opportunity to develop her communication skills. She will be required as the Supply Manager to answer questions, make requests, and make comments.

Activity Sequence:

To introduce circuit electricity, Ms. Holt brings in several different household appliances as examples of things that utilize this kind of electricity. The students have already had a lesson on conductors and insulators. Ms. Holt demonstrates how to create an electricity circuit while the students sit in a circle on the rug watching. The students brainstorm about how the electricity is conducted. Ms. Holt tells the students that they are going to create an electricity circuit and she outlines the expected outcomes of the activity. These expectations have been written on the board for the students to refer to. Ms. Holt assigns the students to groups. She has a pocket chart with the list of groups and the students' assigned roles. Ms. Holt briefly reviews what the expectations are for these roles. She directs the Supply Managers' attention to the list of necessary materials for the activity. Each of the different items are numbered with a picture next to the written words. This will help Melissa because she will have picture cues to refer to and she will know how many different things she will need. Ms. Holt then instructs the groups to go the their assigned work places. Each group has been given the name of an inventor. Each of the different work places has the name of the inventor and a picture of his/her invention hanging above it.

Melissa, Aaron, and Anna are in the Benjamin Franklin group. Above their work place is a sign with Franklin's name and picture on it as well as pictures of things he has invented. While Anna and Aaron go to their workplace, Melissa goes to the supply are to get the necessary material. Melissa looks at the pictures on the list to get what she needs. After she picks up one thing she looks at the list to see what else she needs. Melissa also watches the other Supply Managers to help her. After Melissa collects all the materials she walks back to her group. Her other group members go through each of the items and double check the list to see if they have everything. Aaron and Anna discover they are missing the circuit breaker so they show Melissa a picture of it and she goes back to the supply are to get it. The group works together to create the electricity circuit. They each get an opportunity to manipulate and work with the materials. Aaron and Anna each are able to put the circuit together fairly easily. Melissa works on connecting the wires with the help of her group members. They also show her how the circuit breaker turns the electricity on and off. Melissa switches the circuit several times turning the electricity on and back off. Aaron and Anna discuss how the electricity flows and how the flow can be disrupted. Anna writes down their findings and then reads it back to her group to see if everyone is in agreement. Ms. Holt gives a five minute warning that the whole class is going to regroup. Aaron checks with everyone in his group to make sure they understand and that they have been given enough time to work with the unit.

Ms. Holt's timer goes off which tells the class that their time is up and that they need to direct their attention to the whole class. She has the class number off for Numbered Heads. The first number that is called out is one which is Aaron's number. Ms. Holt asks these students to stand while she asks the question. They are asked to explain how the electricity is conducted. Each of the one's are given two minutes to confer with their groups before they answer. The timer goes off to tell them their time is up. Aaron talks the question over with his group and they talk about how the wire conducts the electricity. They also discuss how the wire is made of metal and how metal is a conductor of electricity,. When Aaron is called on by Ms. Holt to answer, he gives the explanation he and Anna discussed. The next number called out is three which is Melissa's number. Ms. Holt asks how the flow of electricity can be disrupted. Melissa talks the question over with her group. They remind her of the switch and how it can turn the electricity off. When Melissa is called on she shows Ms. Holt how the circuit breaker stops the flow of electricity. The two's are the last ones called. They are asked to give examples of things that utilize circuit electricity. Anna goes back to her group and they look over the list they had written. When Anna is called on she reads her group's list. Their list is added to the class' master list.

From the Numbered Heads exercise and by monitoring the groups while they were doing the activity, Ms. Holt can see that the students have achieved the expected outcomes. If she had seen that certain groups or students were having difficulties, she would make herself available to those students to give them extra help.

Student Outcomes:

Anna mastered the expected outcomes. Anna was also a positive contributor to her group. She was able to meet the needs of her group as well as enhance her own learning.

Aaron was able to demonstrate understanding and explain circuit electricity. He successfully mastered his objectives. Aaron was also effective in his role as facilitator. He included everyone in the group in the activity and made sure they understand.

Melissa effectively communicated with her peers. She answered questions, made comments, and asked questions in her role as the Supply Manager. When the group asked Melissa about the materials they needed, she was able to tell them what she had collected from the supply table. Melissa was also able to get the circuit switch she had forgotten when her group asked her. Melissa also successfully manipulated the materials. She was able to connect two wires with help from her peers. In addition, Melissa was able to switch the circuit breaker on and off. Melissa was able to demonstrate understanding about switching the breaker on and off.

Underlying the individual objectives and successes, the students demonstrated the ability to cooperate and work together effectively. The purpose of having the students work cooperatively together is to foster interdependency and build a classroom community. Everyone had the opportunity to contribute and participate in their own special way.

NUMBERED HEADS

PURPOSE:

To check for individual accountability and demonstration of the objectives of the activity.

PROCEDURE:

1.) The teacher has the students number off in their groups.

2.) The teacher spins a number and calls on that student to answer a question about a given activity.

3.) The student whose number has been called stands up for his/her question. The student is given a few minutes to confer with his/her group before answering the question individually.

4.) The teacher calls on each group's representative (the student's whose number has been called) to answer the question.

5.) The teacher spins another number and repeats the process.

ACCOUNTABILITY:

The students do not know when their number will be called nor do they know what question they will be asked so they need to be prepared. The students are not left entirely out on a limb; they do have the support of their group members to help them answer their questions. The teacher can also modify questions or make adaptations for how students are allowed to answer questions.

Numbered Heads gives the teacher the opportunity to evaluate the students individually as well as in their groups. The teacher can use this activity to decide whether or not concepts need to be retaught or reinforced, either individually or as a whole class.

CLASS/ACTIVITY SCHEDULE FOR JEFF

Time	Class/activity
8:00 a.m.	Students are off to school by car, bus, snowmachine, of walking. JEFF: Jeff's mother drops him drops him off in front of school SUPPORT: Jeff's mother drives Jeff and two of his friend's from the neighborhood.
8:05	Kids play on playground or mingle in the school before school bell; Kid's are playing basketball on the outside ball court. JEFF: Jeff and his friends walk over to join and play basketball; He acknowledges their greetings with a smile and excited giggle. SUPPORT: Jeff's and his friend's play on the same team and give which gives him a chance to shoot, dribble, and pass the ball.
8:15	School bell rings; students go into school JEFF: Jeff looks toward the bell and walks along with the crowd into the school. SUPPORT: No support necessary; he knows the routine.
8:20	Students hang up coats in lockers in the hallway; students take their books, notebooks, etc. for class. JEFF: Jeff goes to his locker and pick's up the right book and notebook and places them into his knapsack. Hangs his coat. SUPPORT: The resource teacher made a list of the books necessary and the schedule for his classes which is in the locker for Jeff to refer to.
8:25	Students get ready for class; prepare necessary books and note- books in the classroom. JEFF: Jeff goes in the class and talks with his classmates about the weekend. Jeff finds his folder and sits down at his desk. SUPPORT: Teacher says "Hi Jeff, get to your reading and answer the questions. If you need help, ask Julie (TA in class)." Teacher says. "Julie would you please help Jeff began with his reading and find the right questions for the chapter."
8:30	Final bell rings; teacher takes roll; Students say Pledge of Allegiance; announcement(s) come on. JEFF: Jeff listens and smiles. Pledge is recited SUPPORT: Not necessary; he knows routine.

8:40 Students return to assigned task(s) and/or teacher has a lecture on a topic (history).
JEFF: Jeff returns to his reading.
SUPPORT: Julie calls for a groups; and selects two students to be peer tutors for reading and answering the questions. The students offer suggestions to each other and answer questions: they help Jeff and talk about the weekend.

9:00 Students began to work on assignments, read, teacher goes around and checks on students to make sure they are doing the assigned task(s) correctly.
JEFF: Jeff is answering the questions.
SUPPORT: Teacher goes over to Jeff's group to check on their progress. Looks at Jeff's group and encourages them by saying "Good job guy's, keep it up! Do you have any questions.?"

9:40 Students put their work away and ask last minute questions.
JEFF: Jeff takes his folder to the file cabinet and puts his work away.
SUPPORT: A student assists him find his file for his folder.

9:45 Bell rings; students go to lockers and get appropriate book(s), notebooks for next class.
JEFF: Jeff gets up and walks to his locker
SUPPORT: No support needed.

9:55 Bell rings; students are in the math class and the teacher is having a lecture on algebraic equations. Students work in groups. Each student goes in their own pace unless the teacher specifies certain assignments be turned in on a specific date.
JEFF: Jeff goes to resource at this time to work on the level of math he is in.
SUPPORT: Resource teacher checks and makes sure he is work- on his math. Jeff receives points and token(s) for the work he is doing.

10:25 Students began to work on assigned tasks; resource teacher is available to help individual students whenever they need help. Teacher goes over assignments to make sure the students are all caught up.
JEFF: Jeff is working on math problems provided by the teacher who collaborates with the math teacher to see what kind of progress Jeff is making.
SUPPORT: The resource teacher checks on Jeff and assigns the TA to keep track of Jeff's progress.

10:45 Teacher has individual conferences with students, especially with the students that are behind.
JEFF: Jeff looks forward to these conferences because of the individual attention he receives.
SUPPORT: The teacher also looks forward to these conferences because he gives advice and evaluates his own program at the same time.

11:10 Bell rings; Students go to lockers for book(s), notebooks for next class.
JEFF: Jeff goes to his locker for the necessary book(s) and notebook.
SUPPORT: No support needed.

11:20 English class begins; Teacher goes over what the class has been working on (2 page English paper on personal experiences). The students share what kind of problems they have encountered with their paper.
JEFF: Jeff is working on paper and shares his rough draft on his personal experience paper on the weekend camping trip.
SUPPORT: The students listen attentively and the teacher praises Jeff for reading to the class.

11:40 The teacher begins to have individual conferences with the students and gives the students advice on what to do with their assigned tasks.
JEFF: Jeff looks forward to these conferences because of the individual attention.
SUPPORT: The teacher praises Jeff on the work that he has done and gives him advice on his final draft.

12:30 P.M. Lunchtime: some students go to the cafeteria and others have a brown bag lunch.
JEFF: Jeff finds his friends and they go to the cafeteria together.
SUPPORT: His friends share with Jeff what went on during the weekend and what they plan to do together after school.

12:20 Lunch is over; Students are doing what they feel is necessary
JEFF: Jeff and his friends go outside go recess; they decide to play basketball on the outside court.
SUPPORT: His friends use teamwork on the court and play fair so Jeff can learn the right way to play basketball.

1:00 Bell rings: Next class begins (Physical Education). The teacher begins by saying that the students should stretch out before they begin exercising. Teacher selects a student to lead in the stretching exercises.
JEFF: Jeff stretches out with the class.
SUPPORT: The whole class helps Jeff, when needed. The teacher checks on Jeff every now and then but emphasizes the other students should help him out. Teacher is instilling cooperative learning.

1:20 Stretching exercises are done: The teacher than selects Native Olympics. Teacher explains why it is important to stretch out especially for Native Olympics. The teacher announces that the class will be practicing for 1 month and than have contests.
JEFF: Jeff listens attentively and sits quietly with the group.
SUPPORT: The students explains to him about Native Olympics.

1:30 The teacher than splits the class into groups; the groups will be practicing the one-foot high kick, two-foot high kick, seal hop, etc.
JEFF: Jeff looks on to see the demonstrations by the teacher.
SUPPORT: His friends in class help him understand and explain the Native Olympics to Jeff. Teacher also comes over to encourages Jeff.

1:45 The teacher than selects students to teams. 4 teams are selected and practice together. The teacher than announces again that they will be practice for 1 month and then have contests..
JEFF: Jeff is on team 2, laughs and jokes around.
SUPPORT: Jeff is place on team 2 with his 2 friends; they help and encourages him out during practice.

2:10 The gym class is almost over; the class gets ready to leave.
JEFF: Goes to the locker room to change his gym shoes.
SUPPORT: His friends help Jeff out and keep him company.

2:15 Bell rings; students go their lockers for the appropriate book(s) and notebooks.
JEFF: Jeff goes to his locker to get his English paper.
SUPPORT: No support needed.

2:25 Jeff goes to resource:
JEFF: Goes to the file to see what he has to work on.
SUPPORT: The TA talks with him and asks him if he is doing alright in his classes. The TA than assigns him with the homework that is due in math in 2 days. The TA has a conference with the teacher to make a schedule for the students.

3:40 Final bell rings for dismissal. Students stream out to their lockers and than go out to catch the bus. Athletes go to practice.
JEFF: Goes to wrestling practice
SUPPORT: Wrestling makes him do his homework; otherwise he would not be as motivated in classes. The wrestling coach checks on Jeff to make sure that he is doing what is required for Jeff to be eligible for the upcoming meets..

5:15 Wrestling is over;
JEFF: Goes to locker room to shower down and get ready to go home.
SUPPORT: His dad picks him up and asks him how the day went.

ALASKA INCLUSION TRAINING MODULES:
Building Inclusive Classrooms and Schools

Module 3: Cooperative Learning and Inclusion
JoAnne Putnam, Ph.D.

Module Series Edited by
Susan Ryan, Ph.D.
Diana Kurka

First Edition: May, 1995
Second Edition: May, 1997

This module is part of the Regular Education Full Inclusion Project training module series funded in part by Grant # H029K20200 awarded by the United States Department of Education, Office of Special Education Programs to the University of Alaska Anchorage, School of Education and the University Affiliated Programs; and funded via the Alaska Comprehensive System of Personnel Development, Alaska Department of Education. Module 1 is part of the inservice training series developed for the Anchorage School District. The content does not necessarily represent the position of the United States or the Alaska Department of Education or the Anchorage School District, and no official endorsement should be inferred.

We extend our appreciation to the site participants involved in the Regular Education Full Inclusion Project during the 1992-1995 grant years, and to the multiple disabilities specialists at Special Education Service Agency for their assistance and support with various aspects of the projects.

Prepared for Alaska Comprehensive System of Personnel Development for 1995 dissemination only. Permissions granted for limited 1997 distribution.

Building Inclusive Classrooms and Schools

Module 3

Cooperative Learning and Inclusion

Module written by JoAnne Putnam, Ph.D.
used with permission

Cooperative Learning and Inclusion

Supporting the Needs of Students Who Experience Disablities in Regular Education Classrooms and Schools: A Training Module Series

JoAnne Putnam, Ph.D.

Module Series Editor:
Susan Ryan-Vincek Ph.D.

Copyright 1994 by Susan Ryan-Vincek, Ph.D.

All rights reserved. No part of this work covered by copyright may be reproduced without the express written permission of the copyright holder.

Please contact:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage
School of Education
3211 Providence Drive
Anchorage, Alaska 99508-8288
(907) 786-4854
(907) 786-1749 (FAX)

Sample citation:
Putnam, J. (1995). Cooperative Learning and Inclusion. In S. Ryan-Vincek (Ed.), Supporting the needs of students who experience disabilities in regular education classrooms and schools: A training module series (pp. 1-33). Anchorage, AK: ASETS

Additional copies may be purchased from:
ASETS Printing
2330 Nichols Street
Anchorage, Alaska 99508
(907) 279-6617
(907) 278-7467 (FAX)
Allow 2-3 weeks for shipping and handling.

This publication was developed, pursuant to grant number H029K20200 from the Office of Special Education Programs, U.S. Department of Education. While grantees are encouraged to express freely their judgements in professional and technical matters, points of view do not necessarily represent those of the Department of Education. Mention of trade names, commercial products or organizations does not constitute endorsement by the U.S. Government.

Cooperative Learning and Inclusion

by
Joanne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek Ph.D.
University of Alaska Anchorage

© Susan Ryan-Vincek

First Edition, First Printing
January, 1995

ACKNOWLEDGMENTS

There are many people who have contributed to the development of this training program including the University Affiliated Program of Alaska with the able assistance of Miriam Engebretson, Jan Westfall, Diane Ordner and Debi Wallstrom; the School of Education, University of Alaska Anchorage for their support of the Regular Education Full Inclusion Project; the full inclusion specialist project site participants including: the Anchorage School District participants Jim Kurka, Lisa Ballentyne, Teisha Burke, and Diana Kurka; Bering Straits School District participants Maggie Ferry, Tammy Dodd, Janet Stout; Hoonah City School participants Alice Williams and Sharon Hill; Skagway Schools participants Jeff Kasler, Kristin Nesheim, and Linda Sims; North Slope Borough School participants Dorothy Ahlalook and Debra Segevan; Yupiit School District participants Ruth deGraaf and Mary Peters; St Mary's School District participants Natalie Luehmann and Ursula Prince; Chugiak Childrens Services participants Deb Dorland, Barbara Humphreys and Angie Lewis; Lower Kuskokwim Schools participants Karen Waters and Elena Egoak; the year two mentees; Special Education Service Agency for their consultative support to the project; Peter Dowrick and Michael Carl for their support and words of encouragement; Patricia Kyle for her positive energy and support; Eileen Hughes and Mike Young for their friendship, insight, and experience; Michael Jack for his insights into life in rural Alaska; Charles Tuckfield for the project illustration; and Herb King for page layout and graphic design.

Overview

Cooperative Learning

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

OVERVIEW
MODULE SERIES COMPONENTS

This training module series is for building inclusive classrooms and schools contains four modules:

(1) Supporting Inclusion Through Collaborative Teaching Teams;

(2) Curriculum Modification and Instructional Adaptation in Inclusive Schools;

(3) The Essential Partnerships Among Families, Communities, and Schools;

and

(4) Cooperative Learning and Inclusion.

Key assumptions infused in each module include:

(1) targeting teams for training;

(2) local decision making and choice format; and

(3) supporting innovation, risk taking and creativity.

Targeting Teams for Training

The primary target audience for this training is professionals and paraprofessionals working in schools. These individuals may include but not be limited to the regular education teacher, special education teacher, or collaborative educator, teaching assistant, occupational and physical therapist, speech and language pathologist, principal, counselor, and social worker. Most schools use the team approach involving individuals from varying disciplines to provide educational services for students. The composition and configuration of teams will vary considerably across schools and districts.

There are two main assumptions that underlie the movement towards inclusive schooling reflected in these training modules. First, schooling is for all children. This means that each educator must ask him or herself how things can change to accommodate all children. Second, the effort to make education meaningful for all children must be a commitment that is made by the team as a whole. Team members working together, sharing a common vision and philosophy of how all children can succeed in schools, is an assumption that is woven through these training modules.

Some inservice training is directed towards particular disciplines. such as teachers, assistants, principals, or specialists. This approach typically results in fragmentation of service delivery. As Bailey and his colleagues (1993) suggest the involvement of all team members, including administrators, in training increases the likelihood that fundamental change will occur both at the building and classroom level. With administrators and itinerant related service personnels' involvement in inservice training as members of teams, all team members will gain a better understanding of the process and substance of changing schooling for all children.

We make the following recommendation regarding inservice training of teams using these modules:

1. Identify at least one team in a given school. This team should consist of all the individuals involved in providing services to that classroom.
2. If possible identify other teams throughout the school or district.

The key stakeholders in the school district need to be aware of the focus, content and process of the training. Whether or not administrators, staff development personnel, discipline administrators, or teacher union leaders are directly involved in the training, theses individuals should be aware of the nature of the training on developing inclusive schools and the types of programmatic, administrative, etc decisions that will likely result from the training. Ensuring either representation from varying disciplines, administrators and other key individuals will increase the likelihood that inservice training participants will feel that their effort is being spent in a meaningful and worthwhile endeavor.

Local Decision Making and Choice

Although the materials in these modules have been organized to be used in either an inservice or preservice program, there are many places where the facilitator can assist the trainees in choosing options such as readings, activities or assignments to engage in. The role of the facilitator is to provide a context in which to explore, practice, reflect and discuss issues as they relate to providing inclusive education. The ultimate goal of the training is for each participant to identify, and implement as part of the team, changes that need to occur to ensure quality education for all children.

Supporting Innovation, Risktaking and Creativity

These training modules are designed to encourage teachers, teaching assistants, principals, parents and related service personnel

Module Layout

The modules are organized by section. Each section contains: (a) purpose; (b) learner outcomes; (c) section content; (d) readings; (e) activity; (f) assignment.

Readings

Selected readings are contained in each module. For the most part, each section will contain both required and additional readings. Selection of readings is the prerogative of the facilitator and should be based on current readings relevant to the participants enrolled in the course/workshop.

Activities

Activities are included in each section of each module. Site facilitators can lead these activities at the weekly meetings with participants, or encourage participants to complete the activities at their individual sites. Activities are designed in an effort to allow participants an opportunity to practice and examine the contents of the section.

Assignments

Each section contains section assignments. These assignments are designed to be completed in collaboration with other team members. Each module contains several large assignments. Facilitators may wish to substitute assignments or omit select assignments in order to concentrate on other more appropriate ones.

Note to Mentors:

1. Identify all direct and indirect members of your team.
2. Contact each person and organize an initial meeting time.
3. Present an overview of the four modules.
4. As a group discuss the following issues:
    - When, where and how often will you meet? (We recommend that you meet weekly for one hour.)

- Identify how you will structure your weekly meetings. You may want to use the meeting format presented in the Collaborative Teaming Module.
- Identify in what specific ways you will be available to support the teams.
- If individual teams are interested in working together to complete either written or video assignments discuss how that will occur.
- Provide options for assignments that may require more time to complete.
- Contact project director with any questions.

Specific Section Options

Options:

- require less reading reviews for participants
- allow participants to select the activities they would liketo complete
- combine assignments
- reschedule due dates

OVERVIEW
COOPERATIVE LEARNING MODULE

The inclusion of a diversity of students in public school classes is an evolving process. It occurs successfully in some schools and classrooms and unsuccessfully or not at all in others. The purpose of this module is to help educators meet the challenge of teaching a diverse student population. One promising approach to maximizing success in heterogeneous classrooms is cooperative learning. Cooperative learning is a strategy that has relevance for all students, old and young alike, but is a prerequisite for the inclusion of students with disabilities. Without opportunities to engage in curricular activities with classmates, students with disabilities are "islands in the mainstream," occupying space in the classroom but in actuality as isolated as they were when pulled out for segregated special services.

Our assumption that in today's heterogeneous classrooms and schools, the goals of public education are most likely to be attained through the application of cooperative learning techniques and the cooperation and teaming of teachers, parents, and others in the community.

This module elaborates on the use of cooperative group learning strategies to educate students with diverse needs in regular classrooms. The progression of the module is to introduce cooperative learning as it is used for **all** students in heterogeneous classrooms. Then, strategies are presented for incorporating students with disabilities into cooperative groups. The rationale for this organization is that educators first need to know how to conduct cooperative learning activities that lead to positive achievement and social outcomes for all students. With this foundation, suggestions will be made for the relatively minor adaptations that are required to support the inclusion of students with disabilities.

In the first five sections, cooperative learning is described and a rationale is provided for using this strategy to enhance student academic and social/psychological outcomes. Next, characteristics of a cooperative approach to classroom management and discipline are presented, along with strategies for facilitating social skill development and the inclusion of students with challenging needs and those from diverse cultural backgrounds. The last section presents techniques for forming cooperative student support teams to assist students in reaching their educational and personal goals.

OBJECTIVES:

1. Participants will define cooperative learning.
2. Participants will identify five key features of cooperative learning.
2. Participants will contrast cooperative learning with individualistic and competitive learning structures.
3. Participants will discuss the rationale for using cooperative learning activities with students with challenging needs.
4. Participants will apply a step-by-step procedure used in conducting cooperative activities by developing and carrying out lesson plans.
5. Participants will generate appropriate adaptations for students with unique learning needs.
6. Participants will form and participate in cooperative student support team(s) to address the needs of a particular student.

OUTLINE:

Each session of this module is comparable to a three-hour semester class. There are ten sessions; each will be organized into a three-hour class segment for thirty hours. It is suggested that audio conferences or video conferences (if possible) take place at five different times throughout the course, but the scheduling of these conferences will be up to the discretion of the instructor. Required readings and application activities will take additional time (about six hours per class) to complete. The following topical sections comprise the *Cooperative Learning and Inclusion* module:

COOPERATIVE LEARNING AND INCLUSION SESSIONS

1. Cooperative Learning and Inclusion: Introduction to the Module; Cooperative Learning Defined
2. Research Review: What Cooperative Learning Has to Offer Students with Challenging Needs
3. How to Conduct Cooperative Learning Activities
4. Positive Interdependence: The Essence of Cooperative Learning
5. Lesson Planning and Cooperative Activity Structures
6. Teaching Cooperative Skills

7. Cooperative Behavior Management
8. Adaptations for Students with Disabilities
9. Cooperative Learning and Cultural Diversity
10. Cooperative Student Support Teams

REQUIRED BOOKS:

Johnson, D.W., Johnson, R.T., & Holubec, E.J. (1990). Cooperation in the Classroom, Edina, MN: Interaction Book Company.

Putnam, J.W. (Ed.) (1993). Cooperative Learning and Strategies for Inclusion: Celebrating Diversity in the Classroom. Baltimore, MD: Paul H. Brookes Publishing Company

RECOMMENDED BOOKS:

Glasser, W. (1985). Control Theory in the Classroom. New York: Harper & Row.

Male, M. & Anderson, M. (1990). Fitting in: Cooperative learning in the mainstream classroom. San Francisco, CA: Majo Press.

(Order from: Educational Apple-Cations, 125 Silvar St., Santa Cruz, CA, 95060.)

REQUIRED VIDEOTAPES:

1. Cooperation in the Workplace (ASCD Series)
2. Social Skills and Cooperative Learning (ASCD Series)
3. Positive Interdependence (Johnson & Johnson)

OPTIONAL VIDEOTAPES:

1. Peer Mediation and Cooperative Learning (Johnson & Johnson)
2. We Can Talk: Cooperative Learning for Linguistic Minority Students (Resources for Teachers)

Section 1

Cooperative Learning and Inclusion: An Introduction

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 1
COOPERATIVE LEARNING AND INCLUSION: AN INTRODUCTION

PURPOSE

This section provides a brief introduction to cooperative learning by defining it conceptually and practically. The features that differentiate cooperative learning from other instructional approaches are identified. Finally, a case is made for the importance of using cooperative learning procedures with all students, including those with intensive needs who qualify for special education services.

PARTICIPANT OUTCOMES

1. Participants will define cooperative learning, identifying five key features.
2. Participants will compare and contrast cooperative and "traditional," noncooperative group instructional formats.
3. Participants will conduct a cooperative and individualistic activity (preferably using the squares) with students in their own village school.
4. Participants will give examples of experiences they have had in cooperative, competitive, and individualistic situations in the past.

CONTENT FOCUS

As students with disabilities are increasingly moved into regular class settings, the challenge to educators is to meet their individualized educational goals while addressing social and psychological needs. It is only in the context of meaningful interaction with typical peers that students can model appropriate behaviors, engage in reciprocal interactions, form friendships, and experience the core curriculum. Cooperative learning procedures facilitate social and instructional inclusion, and the greatest benefits accrue when teachers understand what mediates successful cooperative groups.

INTRODUCTION

The readings and activities in this section are selected to provide an overview of cooperative learning, emphasizing the definition and key characteristics. You will only be covering a small portion of the cooperative learning literature in completing the assignments for this module section. Of course, it would be most beneficial for participants to take an entire course, or series of courses on cooperative learning to understand it more fully. It takes several years to become adept at implementing cooperative learning procedures: continued reading and interaction with colleagues in the profession are essential in order to keep abreast of current issues and trends.

In this section, a conceptual definition of cooperative learning is presented by comparing cooperative learning situations with individualistic and competitive learning situations. All three situations have a place in our classrooms, but cooperative learning should receive the most emphasis. Next, a functional definition is given by engaging participants in cooperative, competitive and individualistic situations. It is important to be aware of your own reactions to each learning structure.

3 WAYS TO ORGANIZE LEARNING:

COOPERATIVELY. COMPETITIVELY. INDIVIDUALISTICALLY

COOPERATION: Individuals work together to reach common goals.

Conditions:

- small groups (2-5 members)
- heterogeneous groups
- positive interdependence among members
- individual accountability
- students help one another
- "shared inquiry"
- students practice social skills
- criterion referenced evaluation
- teachers function in the role of consultant/facilitator

Example: Four students write a group paper using the words from the spelling list. They form study pairs with the goal of each student attaining 90% on the weekly spelling test. If they are all successful, students receive extra bonus points.

INDIVIDUALIZATION: Students work on their own and there is no correlation among goal attainments.

Conditions:

- separate working area
- separate working materials
- no talking
- work alone
- teacher is the primary resource

Example: Your performance on the spelling test does not affect mine, and vice versa. My grade is based on a criterion referenced evaluation system.

COMPETITION: Students try to outperform one another and their goal attainments are negatively correlated.

Conditions: small, homogeneous groups

- maximize the number of winners
- compete against others of similar ability level
- keep it light—have fun
- evaluation by comparison
- teacher is the primary resource
- A norm referenced evaluation system is used.

Example: If *you* are the top speller in the class, then *I* can't be.

One way to understand cooperative learning is to understand **what it is not**. Sometimes teachers believe that simply because they have physically placed their students into groups that the students are participating in cooperative learning groups. It's important to distinguish between traditional group learning and cooperative group learning. As you are introduced to negative exemplars, try to distinguish between cooperative and non-cooperative groups.

Differences Between Cooperative Learning Groups and Traditional Groups

Cooperative Learning Groups	Traditional Learning Groups
Positive interdependence	No interdependence
Individual accountability	No individual accountability
Cooperative skills taught	No cooperative skill instruction
Shared leadership	Appointed leader
Responsibility for success of all group members	Responsibility for one's own contribution
Teacher observation and feedback	Teacher withdraws from groups
Equal opportunity for success	Uniform standard for success
Groups process and set goals for future	No processing or goal setting

The chapter entitled "The Movement Toward Teaching and Learning in Inclusive Classrooms" in *Cooperative Learning and Strategies for Inclusion*, describes the tremendous changes that are occurring in American education and provides a rationale for breaking with our past educational practices of separate programs and whole-class instruction with minimal student–to–student interaction. During the past decade, student populations and demographics have changed dramatically and increasing numbers of students with disabilities receiving their education in general education classes. In addition, our schools have been criticized for failing to produce students who achieve proficiency in subject areas and for teachers' continued reliance on outdated and ineffective instructional practices. To meet the challenge of educating a diversity of students in our schools, restructuring will be required. Changes in our instructional approaches will also be required. Cooperative learning is advocated as one strategy that will help educators to serve a diversity of students in inclusive classrooms.

READING AND VIEWING ASSIGNMENTS

1. Read Chapter 1 from *Cooperative Learning and Strategies for Inclusion* and Chapter 1 from *Cooperation in the Classroom*.
2. View the videotapes *Cooperative Learning in the Workplace* (ASCD series).

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. During the first audio conference, give examples of what distinguishes cooperative learning from traditional forms of instruction. Provide examples of groups you have experienced that were not cooperative and groups that did possess the characteristics of truly cooperative groups.
2. Discuss your past experiences in cooperative, individualistic, and competitive situations with participants in your site. Describe the situations and your feelings about them. Be prepared to share some of these experiences in the first audio conference.
3. Using an assignment that you usually have had the students do individually, have your students do the first half in the traditional individualistic manner. Then have them do the second half cooperatively in groups of three or four. Carefully observe the difference in the students during each half. Share this with your mentors.
4. Write a brief reaction to the videotape and share that with your mentors.

Section 2

Research Review: What Cooperative Learning has to Offer Students with Challenging Needs

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 2
RESEARCH REVIEW: WHAT COOPERATIVE LEARNING HAS TO OFFER STUDENTS WITH CHALLENGING NEEDS

PURPOSE

The aim of this module is to provide a rationale for using cooperative learning procedures with students who have typically been excluded from regular class placement due to their unique learning needs. When students with disabilities are incorporated into cooperative activities beneficial outcomes have been documented. However, the beneficial effects take place in the presence of particular circumstances that educators must be aware of. These conditions, such as positive interdependence and individual accountability, will be emphasized in this section.

PARTICIPANT OUTCOMES

1. Participants will summarize the major outcomes of research on cooperative learning and students with intensive needs.
2. Participants will identify the aspects of cooperative learning that must be present for obtaining positive achievement and social/psychological outcomes.
3. Participants will prepare a position paper or a presentation to be presented to the school staff and local community on why students with disabilities should be included in cooperative groups.

CONTENT FOCUS

This section focuses on the rationale for using cooperative learning strategies in heterogeneous classrooms. The assigned chapters from Johnson, Johnson, & Holubec (1991) and Putnam (1993) will provide overviews of this extensive literature. If you are interested in learning more about the theory and research on cooperative learning, you are referred to Cooperation and Competition: Theory and Research (Johnson & Johnson, 1989) and Cooperative Learning: Theory, Research, and Practice (Slavin, 1990).

Over a thousand studies have been conducted comparing cooperative learning situations to competitive and individualistic learning situations. Based on meta-analyses of the studies considered to be methodologically sound, it has been concluded that cooperative situations result in greater achievement and more positive social/psychological outcomes. Most of these studies have been on students without disabilities or those with mild disabilities.

RESEARCH REVIEW

You will learn in the assigned chapters that the research on cooperative learning and students with disabilities indicates that cooperative learning situations lead to more positive social and achievement outcomes than individualistic and competitive situations. Research on achievement outcomes and skill acquisition for students with moderate and severe disabilities who are engaged in cooperative versus individualistic and competitive activities is limited and mixed in terms of effects. The literature does, however, point to more positive effects for cooperative learning structures with respect to peer acceptance and liking. No studies suggest that cooperative learning should not be used with students with moderate and severe disabilities.

As you read the research overview, it should become clear that the positive outcomes associated with cooperative learning occur in the presence of at least two mediating factors: positive interdependence and individual accountability. As you read these chapters, ask yourself the following questions: (1) Why does the literature advocate the use of cooperative learning with students with disabilities? (2) How does cooperative learning compare with individualistic learning? Is there a place for both cooperation and individualistic learning situations? (3) Should students with moderate and severe disabilities in competitive situations? What is likely to occur?

READING ASSIGNMENTS

1. Read Chapter 3 of *Cooperation in the Classroom*, "Research on Cooperative Learning."
2. Read Chapter 2, "The Process of Cooperative Learning," from *Cooperative Learning and Strategies for Inclusion.*
3. Read the chapter "Educating Students with Severe Disabilities in Regular Classrooms" by Giangreco and Putnam.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. During the audioconference . discuss what the research literature tells us about successful cooperative learning groups. Why do groups fail?
2. From your three readings, write a brief position paper on what you learned concerning the benefits of using cooperative learning strategies in classrooms with students that have severe disabilities. Share this with your mentors and be prepared to discuss it in the audioconference.
3. Share your insights about using cooperative learning strategies with students with severe disabilities with someone at your school who is not connected with this class–someone who is a bit skeptical. if possible. Briefly write up your reactions and share it with your mentors.

References:

Johnson, D. W. & Johnson, R. T. (1989) Cooperation and competition: Theory and research. Edina. MN: Interaction Books.

Slavin, R. E. (1990). Cooperative learning: Theory, research, and practice. Englewood Cliffs, NJ: Prentice Hall.

Section 2

What Cooperative Learning has to Offer Students with Challenging Needs

Readings

Meyer, L.H., Peck, C.A., & Brown, L. (1991). Supporting the education of students with severe disabilities in regular education environments. Critical Issues in the Lives of People with Severe Disabilities. 245-270. Maryland: Paul H. Brookes Publishing Co., Inc.
PO BOX 10624
BALTIMORE MD 21285-0624

◇ CHAPTER 15 ◇

Supporting the Education of Students with Severe Disabilities in Regular Education Environments

MICHAEL F. GIANGRECO
University of Vermont, Burlington, Vermont

JOANNE W. PUTNAM
University of Montana, Missoula, Montana

Over the past decade and a half, when the term "integration" has been applied to the education of students with severe disabilities, often it has meant placement in self-contained classes in general attendance elementary and secondary schools. Such placement may have included minimal interactions with nondisabled peers that typically took place in nonacademic settings and activities, such as the lunchroom, bus, playground, assemblies, and homeroom. Any participation in regular classes was generally restricted to the "specials" such as physical education, art, music, or the technical arts (e.g., shop). While the movement toward at least this level of integration signaled a vast improvement over placement in separate schools attended only by children with disabilities, the observed limitations and inequities of self-contained special classes have resulted in the challenge to develop a more inclusive model of school integration (McDonnell & Hardman, 1989; Taylor, 1988).

Beginning in the late 1980s and now into the 1990s, the term "integration" is increasingly being replaced by the phrase "full inclusion." Full inclusion refers to the provision of appropriate educational services to all students in regular classes attended by nondisabled students of the same chronological age in their neighborhood school, including students with severe disabilities. Like many other promising practices, the placement of students with severe disabilities in regular classes has been evolving. To date, congruence of regular class placement with the values inherent in PL 94-142 (Lipsky & Gartner, 1989, p. 4) and the logic embedded in the various curricular and programmatic components of a quality educational program (Fox et al., 1987; Meyer, Eichinger, & Park-Lee, 1987) have resulted in successful demonstrations of regular class integration (Ayres, 1988; Berres & Knoblock, 1987; Biklen, 1985, 1988; Brost & Johnson, 1986; Flynn & Kowalczck-McPhee, 1988; Ford & Davern, 1989; Ford, Foster, Searl, & Taylor, 1984; Forest, 1984, 1987; Giangreco & Meyer, 1988; G. Porter, 1988; Schattman, 1989; Thousand & Villa, 1989; Villa & Thousand, 1990; Williams et al., 1986). This evolution has reached the point where program descriptions are more widely available and empirical support has begun to emerge.

The main purpose of this chapter is to review existing literature on students with severe dis-

---

Partial support for preparation of this chapter was provided through the U.S. Department of Education, Office of Special Education and Rehabilitative Services, Demonstration Projects for Deaf-Blind Children and Youth (HO86H80017) awarded to the Center for Developmental Disabilities at the University of Vermont. The opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education, and no official endorsement should be inferred.

The authors wish to acknowledge Wes Williams, Lu Christie, Rich Villa, Jacque Thousand, and Gloria Kishi for their helpful feedback and suggestions during the preparation of this chapter.

BEST COPY AVAILABLE

abilities regarding the provision of appropriate special education services in regular education environments. Both the TASH Resolution on the Redefinition of the Continuum of Services (Document III.1, this volume) and the Supported Education Resolution (Document III.3, this volume) challenged the field to move beyond the earlier concept of separate classes in regular schools to the design, implementation, and validation of effective models of full inclusion into regular classrooms and the life of the school. Readers wishing a more detailed history and rationale for this shift in emphasis or a summary of the substantial data base documenting the benefits of integration for students with and without severe disabilities are referred to Bogdan (1983); Forest (1987, 1989); Gartner and Lipsky (1987); Lipsky and Gartner (1989); Meyer and Putnam (1988); Reid (1987); Snell (1988); Snell and Eichner (1989); W. Stainback, Stainback, and Forest (1989); and Thousand et al. (1986).

PARAMETERS OF INCLUSIVE EDUCATION

Peck and Semmel (1982) noted that "the LRE concept defines optimal placement for children with special educational needs as that in which an appropriate instructional program can be delivered with the least abrogation of the child's right to be educated with nonhandicapped peers" (p. 56). Thus, the essence of regular class integration for students with severe disabilities is *providing specially designed instruction in regular education environments*. This interpretation of the law was upheld by the Sixth Circuit Court of Appeals in the case of *Roncker v. Walter* (1983). The court ruled that if a desirable service currently provided in a segregated setting can feasibly be delivered in an integrated setting, it would be inappropriate under PL 94-142 to provide the service in a segregated environment. This was referred to as the "principle of portability" and advanced the legal and logical grounds for providing specially designed instruction in regular education environments.

Within regular classes, the education of students can be broadly characterized along two dimensions: 1) the student's educational and curricular needs, and 2) the supports provided to the student in order to meet those needs successfully (Giangreco & Meyer, 1988). The student's educational needs would be addressed by particular goals and objectives reflecting prioritized curricular content, delivered to the student in both school and nonschool (community-based) instructional contexts. Any given individual student might be pursuing curricular content that is substantively the same as that for nondisabled age-peers, or he or she might be pursuing a course of study that is extended, modified, or otherwise individualized and might vary greatly from that designed to accommodate the majority of typical students. Supports refer to resources such as school personnel, peer groupings, equipment and prosthetic devices, materials, and various instructional adaptations designed to facilitate inclusion and learning for the student. And, finally, a student might work toward attaining his or her educational goals given the same supports typically available in regular education, or might require extended, modified, or otherwise individualized supports.

Figure 15.1 illustrates four basic options for education within regular education classrooms that reflect these basic parameters of program and support. These options may occur in combinations throughout the course of a week, a day, or even within an individual lesson. In the first option (A), a student's program would be similar to the typical curricular content for a particular grade, and the supports provided would be those generally available in regular education environments: A student eligible for special education services would obviously have needs and require supports beyond this level. Option B might represent a program for a student with a sensory or motor impairment only, but whose curricular goals are virtually identical to those established for age-peers; this student would require certain specialized supports such as the services of an orientation and mobility specialist and/or adaptations such as translation of material into sign language or Braille. Students with severe disabilities are most likely to require the kinds of accommodations represented by the two remaining options (C and D). In some instances (perhaps for a portion of the school day), the student's highly individualized goals might be achievable within the regular classroom with the

		SUPPORTS	
		Supports similar to those typically available in regular education	Supports that are extended, modified, or individualized
PROGRAMS	Educational program similar to regular education	A No accommodations required	B Support accommodations required
	Educational program that is extended, modified, or individualized	C Program accommodations required	D Program and support accommodations required

Figure 15.1. Integration options within regular education classroom environments across the dimensions of support and program. (Adapted from Giangreco & Meyer, 1988, p. 256.)

kinds of supports typically available in that setting (option C). In most instances, however, students with severe disabilities will have educational program and support needs that are more extensive and require formal accommodations within the regular classroom (option D). Later in this chapter, we describe both the supports and curricular adaptations that have been proposed to accomplish this.

Local Schooling

Educating students with disabilities in the same schools they would attend if not handicapped is supported by law (Code of Federal Regulations, 1987, §300.552 a, c) and logic (L. Brown, Long, Udvari-Solner, Davis, et al., 1989; Hardman, McDonnell, & McDonnell, 1989; Sailor, 1989). Access and opportunities to participate in the variety of activities valued by a community occurs in the local school, so that social networks can be established and maintained (Froland, Pancost, Chapman, & Kimboko, 1981). Interdependent relationships among people established through these networks have both direct and indirect implications for the quality of a person's life (Meyer & Eichinger, 1987). The kinds of supports offered by such relationships across the life span are personally beneficial by assisting persons to cope with stress; achieve a positive psychosocial adjustment; and establish close, meaningful relationships such as friendships, partnerships, and an adult family unit (Hardman et al. 1989; Snow & Forest, 1987; Strully & Strully, 1985).

Being a member of one's community also creates opportunities for personal growth and achievement that might otherwise be unavailable. For example, Hasazi, Gordon, and Roe (1985) found that a significant percentage of people with disabilities obtained their jobs through social networks of family and friends. Conversely, when the network of family and friends either is not established or is disrupted by placement beyond the boundaries of the neighborhood community: 1) family involvement is compromised, 2) school programs are less likely to reflect curricular content relevant to the community where the student lives and spends his or her nonschool time, 3) access to extracurricular activities may be limited, and 4) other members of the community do not experience the necessary opportunities to develop both the social commitment and skills needed to include individuals who require varying levels of support (Hardman et al., 1989).

Regular education service delivery patterns vary widely depending upon factors such as population density, geography, tradition, and resources (Thousand et al., 1986). Therefore, the ways students move through the schools in different communities will vary accordingly. While

BEST COPY AVAILABLE

the patterns for school-age students may already be established, integrated patterns of service delivery for preschoolers and older students (18–21 years old) require creative and individualized planning. For example, postsecondary-age students might attend programs on college campuses (Frank & Uditsky, 1988, Giangreco & Meyer, 1988; Panitch, 1988, Uditsky & Kappel, 1988). Given the age of the students, this regionalization would be normalized since most 18–21-year-olds who are continuing their education typically attend colleges or technical schools rather than high schools. Further, in rural areas, colleges often are located in regional centers for recreation, social gathering, purchasing, cultural events, and employment. Thus, the regionalization matches students' needs for access to meaningful instructional environments (L. Brown, Long, Udvari-Solner, Davis, et al., 1989).

If students with severe disabilities are to be included in their local schools and follow the patterns of service delivery offered to their nondisabled siblings and neighbors, school personnel must cease confusing intensity of services with location of service delivery (Taylor, 1988). Further, schools must be restructured, both physically and programmatically, to provide better access to all students and to provide educational experiences that reflect the demands of an inclusive life in the community.

Individualized Educational Goals

In recent years, major curricular reform has occurred in educational programs for students with severe disabilities. Past practices of organizing a sequence of educational goals for individual students based upon normative developmental continua in traditional domains such as motor, language, cognitive, socioemotional, and so on were soundly criticized by L. Brown, Nietupski, and Hamre-Nietupski (1976). L. Brown and his colleagues argued that such curricula were fundamentally inappropriate for students with severe handicaps, and by definition, could only result in the acquisition of relatively meaningless, nonfunctional splinter skills across the school career. Alternatively, curricula that were referenced to the demands of current and future domestic, vocational, leisure, and community environments—such that each goal selected for instruction represented a functional skill that would be of use to students now and as adults—were both feasible and more likely to result in meaningful outcomes for students with severe intellectual handicaps (L. Brown et al., 1976; L. Brown et al., 1979).

These claims were supported in a longitudinal follow-up of the ultimate achievements of two groups of graduates from the Madison, Wisconsin, public schools, one of which had experienced a predominantly developmentally based curriculum and the other a community-referenced, functional curriculum (L. Brown et al., 1987). Further empirical evidence for the effectiveness of an environmentally referenced approach to the education of students with severe disabilities was summarized in Horner, Meyer, and Fredericks (1986) and in Goetz, Guess, and Stremel-Campbell (1987). Finally, widespread consensus regarding the components of functional curricula was documented in a large-scale, national survey conducted by Meyer et al. (1987). Their social validation of "most promising practices" for students with severe disabilities involved a comprehensive survey of the professional literature to identify such practices (including those supported by empirical data) and formal ratings by relevant respondent groups—state directors of special education; prominent parent advocates; and national experts in mental retardation, severe disabilities, behavioral research, and deaf-blindness.

Integration into the community was a prominant feature of the L. Brown et al. (1976) call for action, and this concern led directly to the recommendation that curricula must be referenced to the demands of actual environments. In addition to the L. Brown et al. (1987) follow-up report on the outcomes of graduates, there is preliminary evidence that instruction in an age-appropriate functional activity will be associated with increased skill in social interactions with peers (Vandercook, 1989). Various other reports have documented the successful acquisition and generalization of functional skills that relate to increased social competence and community adjustment (e.g., Snell & Browder, 1986). Clearly, developmentally sequenced curricula for students with severe intellectual handicaps entailed increasingly greater discrepancies between their educational activities and those of same-age, nondisabled peers. Furthermore, such curricula were even associated with practices such as placement of secondary-age students with severe disabilities on elementary school campuses in the early days of integration. Now, however, as the context of educational services has shifted from self-contained classes to regular classes, there is a need to expand existing environmentally referenced curricular approaches to address the demands and opportunities available in those environments (York & Vandercook, in press).

For each student, the individualized education program (IEP) is intended to reflect his or her educational priorities. As regular class placements have increased and received professional support, so have resources for assisting in IEP development, which are based upon the premise of regular class integration. Recent examples include the *Syracuse Community-Referenced Curriculum Guide* (Ford et al., 1989), *The McGill Action Planning System—MAPS* (Vandercook, York, & Forest, 1989), the *Cayuga-Onondaga Assessment for Children with Handicaps, Version 6.0* (Giangreco, Cloninger, & Iverson, 1990), and the *Individual Program Design Procedures Manual* (Williams, Fox, & Fox, 1988). Each of these shares certain features, including: 1) an emphasis upon team decision making, 2) a home-school collaboration component, 3) planning based upon a process that incorporates both ecological analysis and problem-solving techniques, 4) strategies for the selection of prioritized goals for individual students, and 5) an approach for matching individual student goals with regular class schedules and activities. While each of these guides describes program components that have been in use for a period of at least several years in various public school programs (and thus have been "field tested" to some extent), none is accompanied by formal data regarding student outcomes.

Longitudinal Planning and Meaningful Outcomes

Annual goals that signify educational priorities for an individual student have been the hallmark of the IEP, yet exclusive emphasis upon yearly goals could result in an education that is too narrowly focused. The same generic outcomes of schooling that are relevant for nondisabled students may be appropriate for students with disabilities. These include such factors as citizenship, community membership, development of a positive self-image, expansion of meaningful personal relationships, productive use of leisure time, vocational productivity, self-control and competence in personal management, and developing a personal style for ongoing learning (i.e., "learning how to learn"). Thus, just as an exclusive emphasis upon acquiring basic academic skills might be regarded as far too restrictive for nondisabled students, an emphasis upon the mastery of a set of functional skills for students with severe disabilities could unnecessarily limit individuals' abilities to achieve social competence and full citizenship as adults.

Williams et al. (1988) noted that IEP goals have typically not addressed these broader outcomes of schooling that might well require more than a single year to achieve. Earlier, Voeltz and Evans (1983) and Evans and Meyer (1987) expressed a similar concern that expectations and, eventually, evidence regarding meaningful student outcomes should serve as the basis for the selection of prioritized annual goals on the IEP. Similar concerns regarding the value of more generic skills such as decision making as a supplement to more typical functional skills have also appeared (e.g., Guess, Benson, & Siegel-Causey, 1985; Shevin & Klein, 1984). Logically, students in self-contained environments would be most vulnerable to narrow educational experiences, while those who are mainstreamed would be exposed to a wider breadth of opportunity and daily validation of the extent to which prioritized educational goals actually relate to increased social competence.

The regular education curriculum could prove to be a starting point for the identification of the needed breadth of curricular experiences (Giangreco et al., 1990). It may be appropriate to require substantive justification for any significant deviations from the curriculum content and typical educational activities experienced by typical age-peers (Giangreco et al., 1990). While educational models that seek to place individualized student priorities within a more expansive educational context are not new, their availability and reports of their efficacy with students who have severe disabilities have yet to appear in the professional literature.

Instruction in Nonschool Environments

Community-based instruction has become widely accepted as an essential component of educational programming for students with severe disabilities (L. Brown et al., 1976; L. Brown et al., 1983; Falvey, 1989; Sailor et al., 1986; Sailor et al., 1989; Snell & Browder, 1986). The need for direct instruction in the community has been based upon certain assumptions:

1. Students need to learn skills in the environments in which they will ultimately be used.
2. Because students with severe handicaps have difficulty generalizing what they learn across settings, learning those skills directly in the community becomes critical.
3. Because students with severe disabilities require more time to master skills, instruction in the community must also commence at an earlier age than might otherwise be necessary to ensure sufficient learning time.
4. Community-based instruction would also ensure that the essential interaction skills needed for use of skills in the presence of relevant nondisabled persons in the community would be evident.
5. Community-based instruction would by definition entail the simultaneous preparation of the nondisabled population for interactions with those with severe handicaps.

Various recommendations have appeared in the literature regarding the relative proportion of time students should spend in nonschool, community-based instruction versus school-based activities. At one end of the spectrum, the Community Intensive Instructional Model recommends explicit guidelines for increasing amounts of time beginning with once a week for 3–8-year-olds, twice a week for 9–11-year-olds, four times weekly for 12–18-year olds, and 80%–100% of the day off campus by age 19–22 (Sailor et al., 1989). Interestingly, earlier descriptions of this model emphasized fairly high percentages of time off campus for even younger children (e.g., 75% of available instructional time by ages 12 to 16; see Sailor & Guess, 1983, and Sailor et al., 1986). The Sailor et al. (1989) and other recent works have emphasized the importance of the regular education classroom and school setting as the context for essential learning experiences (e.g., Ford et al., 1989). Yet, there continues to be considerable emphasis upon the importance of leaving the regular education setting for community-based instruction, particularly as the student becomes older.

Suggested percentages of time to be spent in various settings may be useful as a rule of thumb to secure currently unavailable learning experiences, but these guidelines can also become problematic if they overshadow individualization based upon unique student needs. Furthermore, there are virtually no empirical data to support such percentages. In fact, there currently exists no research evidence to evaluate the relative importance of school versus nonschool learning environments and experiences in general. (The literature on general case instruction does investigate one aspect of this issue—the extent to which criterion skills can be mastered in various learning situations as a function of the extent to which critical components are replicated. See Horner, McDonnell, & Bellamy, 1986, for a review of this literature). Logically, it is reasonable to propose that because of various learner characteristics, students with severe disabilities may require direct instruction in criterion environments. But it is an empirical question whether the regular classroom environment is or is not the criterion environment for various critical life skills. For example, if one justification for nonschool instruction is that it prepares persons with and those without disabilities for task-related interactions with one another, shared school environments could be similarly justified as the essential context for children to experience those and other more informal social interactions across the life span. How much community-based instruction is essential for the acquisition of critical criterion skills, and how much nonschool instruction can students experience without cost to the potential benefits of learning and social experiences in the mainstream school setting? These are important questions that must be addressed in future work.

MANAGEMENT NEEDS RELATED TO INSTRUCTION

One of the most important areas of support, and often the simplest to accommodate, are management needs related to instruction. Management needs refer to *aspects of the educational program that are done to or for the student* that must be attended to if the student is to have adequate access to educational opportunities. Unlike student participation in instruction required by IEP goals or general curricula, management needs do not necessarily require any active student response. For example, the courts have established that many health-related procedures such as management of tracheostomy (*Hymes v. Harnett County Board of Education*, 1981), intermittent catheterization (*Irving Independent School District v. Tatro*, 1984; *Tokarcik v. Forest Hills School District*, 1981), and dispensing medication (*Department of Education, State of Hawaii v. Katherine D.*, 1983) are school responsibilities.

In the *Irving* (1984) case, the Supreme Court stated:

> A service that enables a handicapped child to remain at school during the day is an important means of providing the child with meaningful access to education that Congress envisioned. The Act (P. L. 94-142) makes specific provision for services, like transportation, for example, that do no more than enable a child to be physically present in class.

Therefore, services such as tube feeding to provide nutrition and hydration, repositioning to allow for physical comfort and avoid debilitating conditions (e.g., joint contractures, decubitis ulcers), or providing adaptive devices/materials (Bigge, 1988, p. 64; York & Rainforth, 1987) are appropriate management needs, since they are needed by some students merely in order to be in school for a full day. The Supreme Court qualified its support for management services by indicating that, ". . . if a particular medication or treatment may appropriately be administered to a handicapped child other than during the school day, a school is not required to provide nursing services to administer it" (*Irving Independent School District v. Tatro*, 1984).

Three major issues present themselves when management needs are delivered to students who are placed in regular education classes: 1) the relationship between management needs and educational inclusion, 2) the relationship between management needs and student dignity, and 3) the extension of management needs to encompass services that will be increasingly prominent in integrated settings.

The courts have held that students with intensive management needs do not relinquish their right to be educated in the least restrictive environment. The case of *Espino v. Besteiro* (1981) involved the need for an air-conditioned environment for a 7-year-old child who was unable to regulate his own body temperature. The school originally agreed to provide an air-conditioned cubicle to be placed in the classroom. The court interceded and required the school to air condition the entire classroom because the cubicle restricted the student's interactions with peers. Various advances in medical and engineering technology imply that students with increasingly complex management needs will be able to gain access to regular schools and classrooms. Precautions will be required to ensure that attention to management needs does not restrict regular class placement opportunities.

As management needs are attended to, student dignity and privacy must not be violated. Practices that have been associated with self-contained special classes or special schools, such as changing a student's soiled diaper behind a screen in the corner of the classroom or administering postural drainage and suctioning in the presence of other students, are inappropriate in separate classes and become even more aberrant and stigmatizing in regular classes. Such practices may interfere with a learner's self-concept, perpetuate double standards, and do nothing to enhance the perceptions of classmates toward the learner. Regular class placement does not necessarily mean that every service provided to the student occurs in the regular class. Students placed in regular classes could have access in the same school subenvironments used by nonhandicapped students for procedures requiring privacy, for example. Thus, students should change clothes for physical education class in the locker room, have their bowel and bladder needs at-

BEST COPY AVAILABLE

tended to in a bathroom, and receive medication in the health office. Since adapted materials and devices range from simple and unobtrusive to complex and very obtrusive, care must also be taken to ensure that any potential benefits of using an adaptation are not overshadowed by stigmatizing effects that may draw undue negative attention toward a person with disabilities (Stieler et al., 1977). If students with severe disabilities use the same facilities as their nondisabled counterparts and use the most normalized adaptations available, the likelihood of compromising student dignity can be greatly reduced.

Finally, management can be extended beyond passive therapeutic techniques, adaptations, specialized health procedures, and transportation to include removal of barriers to participation and supports to professionals and families (*Code of Federal Regulations*, 1987, §300.13). For example, regular education students might be taught the augmentative communication system used by a student who is nonverbal. This would be considered a management need because it is done for the student (not necessarily requiring his or her participation) and would be necessary for access to the educational program. Another management need might be consulting with school staff who operate after-school programs. In the case of *Rettig v. Kent City* (1983), the court required the school to provide at least 1 hour per week of extra-curricular activities as a related service for a 10-year-old student with severe disabilities. The court's decision was based, in part, on the *Code of Federal Regulations* (1987, §300.16, Nonacademic Services) which stated, "Each public agency shall take steps to provide nonacademic and extracurricular activities in such a manner as is necessary to afford handicapped children an equal opportunity for participation in those services and activities . . . [and that] they be exposed on an equal basis as nonhandicapped children." Further, in *Stacy G. v. Pasadena Independent School District* (1982), the court directed the school to offer training in behavioral techniques and counseling to the parents of a child with severe retardation and challenging behaviors to help relieve emotional stress, and therefore have an indirect benefit for the child.

Management needs typically are a small but important aspect of the educational program. Strategies to address management needs that support mainstreaming, preserve student dignity, and are expansive in their vision of what is necessary to do for a student can provide clear paths to inclusive opportunities.

CURRICULAR AND INSTRUCTIONAL PRACTICES

As regular and special education professionals work together to deliver appropriate educational programs to students with severe disabilities in the regular classroom, curricular and instructional practices must be identified to facilitate this process. Furthermore, these efforts should be coordinated with parallel reform movements to restructure America's schools and classrooms to better meet the needs of today's diverse student population. For example, educators concerned about the large percentage of students at risk for dropping out of school acknowledge that these statistics may indeed reflect failures to learn, but may also be evidence of schools that fail to teach (Natriello, 1987; Wehlage & Rutter, 1987). In fact, the variety of pressures for reform upon our educational system creates a window of opportunity for collaborative research efforts to validate classroom and instructional organization patterns that promote both achievement and social adjustment for all students in the regular classroom. Various authors concerned about the absence of appropriate mainstream educational opportunities for students with disabilities have advocated for fundamental change in the traditional means of delivering instruction in regular education to solve this dilemma (D. W. Johnson, Johnson, & Maruyama, 1983; Madden & Slavin, 1983; Nevin & Thousand, 1987; Wang & Birch, 1984).

In this section, existing evidence is reviewed regarding those curricular and instructional practices that have been related to: 1) the successful mastery of relevant skills, including evidence on acquisition, generalization, and maintenance of those skills; 2) progress in attainment of meaningful outcomes, such as evidence of social competence in school and nonschool environments; 3) efficient delivery of services to students with severe disabilities within the regular classroom at various age levels; and 4) coordination of services between regular and special education professional staff and resources. As noted earlier in this chapter, the majority of this research has been carried out for two scenarios: 1) effects of relatively limited integration experiences for students with severe disabilities have occurred in situations where these students attend self-contained classes for the majority of the school day, but are exposed to time-limited mainstreaming and/or peer interaction experiences; and 2) the effects of more fundamental alterations to instructional and curricular practices upon students has occurred in mainstream educational arrangements for students with mild to severe disabilities. Thus, the data base is disappointingly limited for evidence regarding full inclusion in mainstream classes for students with severe disabilities. Nevertheless, this section reviews the subset of promising instructional support approaches for which data exist that might be applicable for students with severe learning needs.

Structured Social Contact

Research carried out over a period of many years regarding the social integration of students with mild to moderate disabilities has long documented that mere physical proximity will not result in positive outcomes (Gresham, 1982; Semmel, Gottlieb, & Robinson, 1979). According to some researchers, when students with disabilities are subjected to unstructured integration experiences, they may: 1) be more socially isolated from their peers than are nondisabled students, 2) be less socially accepted than their nondisabled peers (Asher & Taylor, 1981; Bryan, 1974; Gresham, 1982; MacMillan, Jones, & Aloia, 1974), and/or 3) interact more frequently among themselves than with nondisabled students in integrated schools (Peterson & Haralick, 1977; Porter, Ramsey, Tremblay, Iaccobo, & Crawley, 1978). Alternatively, almost any structured effort to have an impact upon the academic and social integration of students with mild to moderate disabilities has had a positive outcome. Programs ranging from teaching social skills to students with disabilities to structuring teacher behavior to model positive interactions with those students in the regular classroom have been associated with increases in peer acceptance and academic performance (for a comprehensive review of this research, see Meyer & Putnam, 1988). (The evidence of the effects of instructional modifications has been even more dramatic, but these data are discussed in the next section.)

On the one hand, research carried out in integrated schools has also documented the positive effects of structured contact upon students over and above the effects of physical proximity alone. On the other hand, Voeltz (1980) found that even without a structured interaction program, the mere presence of students with severe disabilities on campus—even though they attended completely separate self-contained classes—was associated with significantly more positive student attitudes toward persons with disabilities in comparison to the attitudes held by students in schools that were not integrated. But in both her 1980 report and her 1982 follow-up, the most positive acceptance scores occurred in those schools where students with severe disabilities were enrolled in self-contained classes but also participated in a structured recess "special friends" peer interaction program; these results were highly significant in this large-scale investigation involving several schools and a large sample of children (Voeltz, 1980, 1982). In her follow-up study in which nondisabled peers (interviewed several years later as older teenagers) who had or had not participated in the earlier peer interaction program in elementary school, Kishi (1988) found that those students who had experienced either contact or interactions with peers with severe disabilities retained more positive attitudes than those who had had no contact. This follow-up study further suggested that students' positive attitudes increased with age (Kishi, 1988).

Kishi (1988) also reported that several students described negative feelings about situations during the earlier elementary school interaction program when they were asked to "help" or supervise a student with severe disabilities. Apparently, at least some staff members had involved nondisabled students in activities such as feeding despite explicit guidelines for the program prohibiting such interaction experiences

BEST COPY AVAILABLE

(Voeltz, 1984). Reports of such negative memories years later by nondisabled peers are consistent with various caveats offered by D.W. Johnson and Johnson (1989) in their review. These authors maintained that some of the reasons why physical proximity alone is not sufficient to produce positive relationships include: 1) both peers with and without disabilities will experience an "interaction strain" in initial encounters, 2) normative cultural admonitions to "be kind to someone" with a disability may result in overfriendliness or paternalism in initial encounters that may be likely to decrease over time; and 3) the presence of ambivalent feelings that involve more favorable overt or public attitudes may be experienced along with less favorable nonverbalized feelings toward persons with disabilities. If such issues are valid, it would be particularly important that the interactions between individuals with severe disabilities and their nondisabled peers be carefully structured to offset these phenomena of interaction strain, paternalism, and ambivalent feelings that could become increasingly and openly negative over time. Either physical proximity alone or demanding interactions that place unreasonable responsibilities upon the child without disabilities could ultimately result in decreased social acceptance of persons with disabilities.

Instructional Modifications

It is not surprising that planned integration efforts have posed challenges to schools, given the strong tradition of teacher-directed, whole-class, age-graded instruction with little instructional variability across relatively homogeneous groups of children (Goodlad, 1983). Elementary and secondary teachers typically are unaccustomed to teaching groups of students that would be as diverse as those suggested by full inclusion of students with severe disabilities. Students may also be unaccustomed to learning and working with peers with disabilities; they too may lack the breadth of interpersonal skills needed for meaningful and positive cooperation with peers who seem quite different from other classmates. D.W. Johnson, Johnson, and Holubec (1986) stressed that students are not born collaborators, but must learn the skills required to work effectively with one another. Strain and Shores (1983) also noted that the absence of interpersonal skills needed by students of varying ability levels to learn together would continue to be a critical barrier to effective integration unless instruction in those skills was provided. Various other educators have also maintained that successful integration will be dependent upon appropriately structured classroom activities and accompanied by teacher guidance and encouragement to maximize learning and interpersonal outcomes (Ballard, Corman, Gottlieb, & Kaufman, 1977; Bricker, 1978; Stainback & Stainback, 1985).

Thus, a major challenge for those involved in integrating students with severe disabilities is to provide specialized instruction to meet individual student needs while also providing opportunities for meaningful peer relationships and participation in classroom activities. Students receiving special services may not always work at the same pace or be guided by the same educational objectives and curricula as their age-peers in the regular classroom. Past practices that involve structuring individualistic learning activities—tutorials—within the regular class have been refered to as "islands in the mainstream" and associated with continuing isolation of those students from their peers and the life of the classroom (Biklen, 1985, p. 18). As Madden and Slavin (1983) noted, "All too often mainstreaming involves putting academically handicapped students in regular classrooms where their learning problems cause them to be resegregated" (p. 552).

One promising approach that involves students of varying ability levels in shared instructional and learning experiences is *cooperative learning* (D.W. Johnson et al., 1986). In cooperative groups, individuals work together to reach common goals (Deutsch, 1949). Cooperative learning situations can be contrasted with learning situations in which an individual's goal attainment is not correlated with group goal attainment (individualistic) or is negatively correlated with others' goal attainments (competitive).

As conceptualized by D.W. Johnson and Johnson (1989), cooperative learning is a teaching strategy that consists of five basic elements. "Positive interdependence" is the first requirement. This means that accomplishment of a group goal is dependent upon members working together—otherwise the goal cannot be achieved. Methods for promoting positive interdependence are: 1) having mutual goals (goal interdependence); 2) utilizing divisions of labor (task interdependence); 3) dividing and/or sharing materials, resources, or information among group members (resource interdependence); 4) assigning students differing roles (role interdependence); and 5) giving joint rewards (reward interdependence). Second, face-to-face verbal (or other communication forms) interactions must occur. Third, students are held individually accountable for mastering the assigned material and contributing to the group's efforts. Insisting upon individual accountability averts the "hitchhiking" phenomenon, where one student does most of the work and the others are viewed as getting a "free ride." Fourth, students are expected to utilize positive interpersonal and small-group skills. Teachers provide specific instructions on how to collaborate in groups (e.g., by providing instruction in social skills such as encouraging others to participate or taking turns). Teachers also spend time monitoring student behaviors, discussing group functioning, and providing students with feedback on their performance. The final essential component of good cooperative learning is group processing, which involves self-evaluation within the group regarding how well the group is functioning and whether group goals are being achieved.

Extensive research on cooperative learning (approximately 600 studies to date) has indicated that in addition to contributing significantly to student achievement, cooperative learning activities result in students who tend to be friendlier, have more of a group orientation, and learn more from one another (D.W. Johnson et al., 1983; D.W. Johnson, Maruyama, Johnson, Nelson, & Skon, 1981). In cooperative learning situations, more helping, encouraging, tutoring, and assisting among students occurs than in competitive or individualistic situations (D.W. Johnson & Johnson, 1986). Cooperative learning experiences also have been found to "promote more differentiated, dynamic, and realistic views (and therefore less stereotypes and static views) of other students (including handicapped peers and students from different ethnic groups) than do competitive and individualistic learning experiences" (D.W. Johnson & Johnson, 1984, p. 115).

Over 50 studies have been conducted on mainstreaming and cooperative learning. D.W. Johnson et al. (1981) and D.W. Johnson and Johnson (1989) reviewed 41 studies comparing the relative effects of two or more goal structures on interpersonal attraction between students with and without disabilities. Cooperative learning experiences produced greater interpersonal attraction between the two groups of students than did competitive (effect size = 0.70) and individualistic (effect size = 0.16) experiences.

Although most studies on the use of cooperative learning have involved students with mild disabilities, the application of such procedures to students with moderate and severe handicaps is increasing. Studies have been conducted in elementary and secondary school and recreation settings, involving activities as varied as science projects, art, cooking, music, academic and preacademic tasks, and group recreation activities (Eichinger, 1990; Jellison, Brooks, & Huck, 1984; R. Johnson, Johnson, DeWeerdt, Lyons, & Zaidman, 1983; R. Johnson, Rynders, Johnson, Schmidt, & Haiden, 1979; Putnam & Rynders, 1985; Rynders, Johnson, Johnson, & Schmidt, 1980; Wilcox, Sbardellati, & Nevin, 1987). The general findings from this research are that cooperative learning situations are associated with significantly higher levels of certain positive social and verbal interaction behaviors, greater interpersonal attraction on sociometric outcome measures, and academic gains comparable to those in competitive and individualistic situations.

A study by Putnam, Rynders, Johnson, and Johnson (1989) involved students with moderate and severe disabilities in fifth-grade science classes. Social interaction behaviors of students in cooperative groups either receiving or not receiving instruction in cooperative skills were compared. The students receiving cooperative skills instruction interacted more positively with one another than did those who did not receive this instruction. Although the students with disabilities in this study were not expected to attain the same achievements in science as the other students, there was anecdotal evidence that students contributed to their groups' goal attainments in various ways while also working on their own individual instructional objectives. Individual objectives focused on the development of skills such as following instructions, identifying objects, measuring liquids, taking turns, obtaining materials at the back of the room, and communicating effectively.

The Putnam et al. (1989) cooperative learning investigation combined aspects of curriculum overlapping (described later in more detail) as well as partial and extended participation in science activities. These included: 1) having a student with moderate disabilities print the answers to the questions as the other group members spelled the words, and 2) having a student with severe disabilities obtain the equipment from a table and pour water into a container during an experiment on displacement. These examples and others described in Ford and Davern (1989) demonstrate creative teacher planning to include students with severe disabilities in regular class activities. Further research is needed to determine which educational situations are most suited for cooperative learning activities involving heterogeneous groups that include students with severe disabilities.

Curricular Adaptations

A key strategy for incorporating students with severe disabilities into regular classes is through *curricular adaptations*, or modifying curriculum assignments to meet the needs of individual learners. Typically, students with severe disabilities learn at a significantly slower rate than do nondisabled classmates. Therefore, the lesson content expectations placed upon these students must be adjusted to: 1) prevent mismatch between each student's skill level and the lesson content, and 2) promote student success in learning relevant skills. There is evidence to suggest that appropriate curricular choices for students result in success on daily tasks, which are the antecedents to long-term achievement (Gickling & Armstrong, 1978). While curricular adaptations for a student might involve a combination of learning alone and learning in small and large groups, this section focuses on curricular adaptations that provide for learning within heterogeneous groups. This is not meant to imply that there is never a need to deliver intensive individualized instruction outside of group contexts—an issue not unlike that of deciding how much community-based instruction is needed and justified outside the regular school for each student. However, only the Meyer et al., (1987) social validity study of general guidelines for relative proportions of such learning opportunities provided "empirical" support for promising practices in this area. Clearly, future research is needed to address this issue.

Adapting curricula to meet individual student needs is a task that is familiar to many regular education teachers. Individualization involves establishing personalized goals and objectives for a student and determining effective ways to accomplish them. Two broad options exist for individualized curricular adaptations: 1) multilevel curriculum selection, and 2) curriculum overlapping.

Multilevel Curriculum Selection

Multilevel curriculum selection refers to identifying different goals and objectives for individual students within the same curricular domain and teaching them within the same lesson or activity (C. Campbell, Campbell, Collicott, Perner, & Stone, 1988). For example, a student with severe disabilities integrated into a reading group with his or her second-grade classmates who are learning to read words and simple sentences may be learning to read two to three functional vocabulary items and to match those words to sample objects. Multilevel curriculum selection has occurred in regular education as an adaptation of Bloom's *Taxonomy of Educational Objectives* (1956), including knowledge, comprehension, application, analysis, synthesis, and evaluation goals for different students. For example, in a lesson on money, one student might be learning at knowledge level (e.g., identifying money), another at comprehension level (e.g., understanding the uses of money), and others might be applying their knowledge and comprehension by making purchases and budgeting.

Multilevel curricular selection can involve "partial participation," a concept whereby persons with severe disabilities "can acquire many skills that will allow them to function, at least in part, in a wide variety of least restrictive school and nonschool environments" (Baumgart et al., 1982, p. 19). The assumptions underlying partial participation are that: 1) it is educationally more advantageous than exclusion from age-appropriate environments and activities, 2) it is applicable regardless of the student's degree of dependence or level of functioning, 3) it should be increased through direct systematic instruction, 4) it should result in more positive perceptions of the student by others, and 5) it should commence at an early age to facilitate current and future inclusion in integrated settings (Baumgart et al., 1982).

Multilevel curricular selection can also be consistent with expanded models of participation such as Project SPAN (F. Brown, Evans, Weed, & Owen, 1987). When confronted with teaching behaviors that appear too difficult or seem inappropriate for students with severe disabilities, educators have sometimes limited their participation because they have focused on the "core" skills associated with activities. Exclusive focus on core skills limits the scope of behavioral routines to often have arbitrary beginning and ending points (F. Brown et al., 1987). To address this concern, the Project SPAN model elaborates routines to include extension and enrichment components. Extension components examine the learner's ability to perform the following skills with regard to a particular activity: initiating, preparing, monitoring of quality, monitoring of tempo, problem solving, and terminating. Enrichment components explore the learner's ability to communicate, engage in appropriate social behavior associated with the routine, and indicate choices and preferences. (For a summary of data on student attainment of different components of routines, see Evans, Brown, Weed, Spry, & Owen, 1987).

Curriculum Overlapping

Curriculum overlapping is a variation on multilevel curriculum selection wherein the individually selected goals and objectives to be acquired within the context of a shared group activity are generated from different curricular areas (Giangreco & Meyer, 1988, p. 257). This concept essentially addresses the commonly expressed concern that many academic classes enrolling typical students are simply not relevant to the educational needs of students with severe disabilities. For example, the inclusion of these students in classes such as algebra, biology, or mathematics may be regarded as inappropriate because: 1) the curricular content is viewed as nonessential for the lifestyle needs of persons with severe disabilities (as it may be for many typical students as well); 2) the curricular content is regarded as beyond the cognitive capabilities of students with severe disabilities; and 3) even if the information were judged to be important and could be mastered, the modifications necessary for meaningful participation would be so extreme that the academic development of nondisabled students might be jeopardized (Brown, Long, Udvari-Solner, Schwartz, et al., 1989). In the Putnam et al. (1989) cooperative learning study described earlier, the student with severe disabilities was included in a science class in order to master individually appropriate educational goals in other curricular domains, such as social competence, communication, and mobility. To date, there have been virtually no other examples in the published literature of learner outcomes accomplished through the application of the principles of curricular overlapping in the regular classroom, though examples can be found in practice (e.g., Biklen, 1988).

Adaptive Instruction

Adaptive instruction is a comprehensive approach designed to accommodate diversity among students within regular classes that combines or is compatible with many practical and effective components from the aforementioned strategies of multilevel curriculum selection and curriculum overlapping (Wang, Reynolds, & Schwartz, 1988). According to Walberg and Wang (1987), adaptive instruction is based on the premise that "individual students learn in different ways and at varying rates, and a major task for schools is to provide educational experiences that accommodate these differences in order to optimize each student's education" (p. 113). Distinguishing features of the model include:

1. Instruction is based on the assessed capabilities of each student.
2. Materials and procedures permit each stu-

BEST COPY AVAILABLE

dent to make progress in the mastery of instructional content at a pace suited to his or her abilities and interests.

3. Periodic evaluations of student progress emphasize feedback to individual students regarding mastery.
4. Each student assumes some responsibility for diagnosing his or her needs and abilities, for planning individual learning activities, and for evaluating his or her mastery.
5. Alternative activities and materials are available to aid students in the acquisition of essential academic skills and content.
6. Students have a choice in determining their individual educational goals, outcomes, and activities.
7. Students assist each other in pursuing individual goals, and they cooperate in achieving group goals.

Research involving students with mild disabilities has indicated that exemplary implementations of adaptive instruction programs are associated with achievement levels and classroom processes that are superior to those attained under exemplary traditional instruction (i.e., teacher-directed and group-paced instruction). Various programs are available—each of which has empirical support documenting positive outcomes for students with mild learning handicaps—that incorporate aspects of adaptive instruction, including the Adaptive Learning Environments Model (ALEM) (Wang & Birch, 1984), the Bank Street Model (Gilkeson, Smithberg, Bowman, & Rhine, 1981), and Team Assisted Individualization (Slavin, Madden, & Leavey, 1984). As ALEM has been widely implemented and evaluated in situations involving students with disabilities and is often discussed with reference to the regular education initiative in particular, it is described here in more detail.

ALEM has been field tested for more than a decade at the University of Pittsburgh and elsewhere in a large number of public and private schools (Wang & Birch, 1984). ALEM involves curricular and instructional modifications to support students with mild handicapping conditions and other students with learning difficulties in the regular classroom. Components of the model include: 1) a diagnostic-prescriptive monitoring system, 2) delabeling of mainstreamed special students, 3) provision of individualized assistance to all students experiencing learning problems based upon periodic performance data, and 4) teaching students self-management skills. The ALEM curriculum combines "direct" or prescriptive instruction with aspects of informal, or open, education thought to be conducive to the attitudes and processes of inquiry, social cooperation, and self-management for learning (Wang, Gennari, & Waxman, 1985). Although ALEM is a promising adaptive learning program model, critics have challenged the evaluation methodology utilized in early reports (Hallahan, Keller, McKinney, Lloyd, & Bryan, 1988). In addition, ALEM has not to date been systematically extended to address the ability of the model to include students with severe disabilities as well. In principle, of course, ALEM involves an alternative to group-paced instructional models, and might thus have considerable potential for providing the kinds of intensive, individualized learning activities needed to complement group experiences such as cooperative learning in the regular classroom.

Other Regular Education Curricular Modifications

Various other instructional arrangements have been described as having particular promise for instructing students with special needs in regular classrooms. In their review of research and practices, Nevin and Thousand (1987) identified several curricular and instructional approaches that would appear to be supportive of mainstreaming in principle: 1) "mastery learning" (Anderson, 1985; Bloom, 1977, 2) increasing academic learning time (Wilson, 1987), and 3) applied behavior analysis (Berkson & Landesman-Dwyer, 1977; Deno & Mirkin, 1977; Haring, Lovitt, Eaton, & Hansen, 1978).

PEOPLE RESOURCES

Education is first and foremost a labor-intensive undertaking, and the quality of a program is most certainly dependent upon the characteristics of the people involved. Human resources are possibly the most crucial component for the delivery of quality programs to children—interestingly enough, they are also the least studied. At this point in time, while it appears that knowledge and skills regarding exemplary practices are important, even more important may be the ability of the adult personnel to operationalize collaborative teamwork principles in their interactions with one another and with their students.

Perhaps because the inclusion of students with severe disabilities in the regular classroom is so new, we could identify virtually no research regarding the organization of staff and other human resources to facilitate this process. There are, however, working papers, program descriptions, and informal reports of observations of schools and classrooms that have achieved full inclusion. For example, Fenwick (1987) described the advantages and disadvantages of various staffing strategies implemented at the Edward Smith School in Syracuse, New York, where students with autism and other severe disabilities have received special services in the regular classroom for many years. But no data have been provided to support the generalizations drawn regarding preferable practices to facilitate mainstreaming. There is, however, a growing professional literature empirically documenting the effects of various staffing patterns in mainstream services for students with mild disabilities. For example, considerable information is now available regarding components of effective consultation to the regular classroom teacher to meet individual needs (see Fuchs & Fuchs, 1989, for one such report, and Huefner, 1988, for a review of this research). Such evidence should be utilized as a starting point for the organization of staffing resources to support mainstream services for students with severe disabilities (see also Chapter 17, this volume, for a review of personnel preparation needs). In the interim, this final section of this chapter presents an overview of the issues and possible research directions for more formal investigation.

Teachers

At the heart of any regular classroom is the teacher. Managing and providing meaningful instruction to a group of 20–30 children or adolescents is a challenge regardless of the characteristics of individual students. When a student enters the regular classroom with curricular needs that differ from those of his or her classmates and may require intensive instruction, regular education teachers are confronted with a task for which they may be unprepared and that typically requires collaboration and support.

Within the framework of multiple supports, a crucial element of successful integration is for regular class teachers to assume ownership for education of the student with disabilities, just as they would for any other student on their class list. This ownership is vital to the development of an inclusionary climate in the classroom. From a practical standpoint, in order for the input of other school personnel to be truly supportive, the regular class teacher must play a significant role in guiding the process. Logically, whenever a student with disabilities is viewed by the teacher as someone else's primary responsibility, he or she is more likely to be socially and academically isolated within the regular class. Conversely, in classes where teacher behavior and verbalizations indicate ownership as the student's primary teacher, isolated or parallel education would be minimized and inclusion in class activities should be greater. However, we were unable to locate any research investigating the specific effects of teacher behavior within the regular classroom upon students with severe disabilities or their nondisabled peers.

As integration efforts have expanded, new roles have emerged for teachers as collaborators and consultants within the regular classroom. Collaborative team-teaching arrangements have emerged as one type of service delivery configuration designed to utilize the skills of both classroom teachers and teachers prepared to serve as resource consultants in particular specialized need areas (Fenwick, 1987). Thousand and Villa's (1989) recent review suggested that the critical elements for effective team teaching parallel those for cooperative group learning, including: direct interactions, interdependence, use of prosocial skills such as conflict management, communication, trust building, and individual accountability. Whether they are referred to as support facilitators (S. Stainback, Stainback, & Harris, 1989), methods and resource teachers (Campbell et al., 1988), teacher consultants (Huefner, 1988), or education specialists (Thousand et al., 1986), alternative positions have been created and both special education teachers and master teachers with specialized skills are being retrained to fill such roles. For example, the University of Vermont initiated a post–master's degree–level (certificate of advanced study) training program in 1986 to prepare educational specialists (ES) to support students with intensive educational needs in regular classes. By the 1988–1989 school year, 20 educational specialists were serving students in 14 Vermont Supervisory Unions. During the 1989–1990 school year 35 educational specialists served more than half of Vermont's Supervisory Unions.

There are a growing number of districts and schools that utilize consultation and team-teaching staffing models to support mainstream placements for students with severe disabilities. The documentary *Regular Lives*, aired on public television in the United States in 1988, provided several examples of such programs (Biklen, 1988); and entire school districts in certain states in the United States and provinces in Canada now serve virtually all students with severe disabilities by providing consultation to regular class services. Nevertheless, systematic evaluation reports of the components of these efforts and outcomes associated with those components for students have not yet been published.

Related Services Personnel

In addition to consultant teachers serving as integration specialists, a wide array of related services providers are mandated to support the education of students with severe disabilities, including: occupational therapists; physical therapists; speech/language pathologists; and other professionals such as social workers, school psychologists, orientation-and-mobility instructors, nurses, and recreation specialists (as individually appropriate). Much of the service currently provided to students with severe disabilities by these related professionals has been characterized as direct and "pull out," isolated from typical instructional environments (P.H. Campbell, 1987; Giangreco, 1986). As these students access regular classes, related services personnel will be called upon to support those educational programs with services that are compatible with regular education routines. Giangreco, York, and Rainforth (1989) argued that the first consideration for related services delivery should be carefully designed, indirect/consultative services if those services are to support integration (see also Giangreco, 1989b).

Paraprofessionals

Teacher aides or educational assistants have been used extensively to support students with disabilities placed in regular classes. Service delivery patterns for the use of teacher aides has followed three basic patterns: 1) one aide is assigned to one student full time, 2) one aide is assigned to a small group of students within the same class or school (typically, two to four students), or 3) two or more aides rotate responsibilities for both direct student support and other school duties (e.g., library support, cafeteria work, bus supervision).

Some parents and professionals have expressed concern that the assignment of aides may result in a situation where the least trained of the adults involved with the student has the most responsibility and may often be left to make many day-to-day decisions. Others are concerned that the overreliance on teacher aides interferes with the development of a sense of ownership by the regular classroom teacher for a student with severe disabilities who has a one-to-one aide assigned. While the use of paraprofessionals can be a valuable instructional resource, we could identify no systematic investigations that examined the impact of various paraprofessional service delivery configurations designed to support students with severe disabilities in regular classes. Thus, while documentation is unavailable, reports from school districts suggest that use of a full-time aide for a single student has serious limitations for both school systems and students. First, districts typically have difficulty justifying a full-time aide for every student with special needs placed in a regular class. Second, burnout among aides is said to increase and productivity suffer when their assignments are restricted to the same student exclusively. Third, the presence of a full-time aide for a student may be detrimental by creating unnecessary dependency or because the physical presence of the adult may interfere with the development of peer relationships (York, Vandercook, Caughey, & Heise-Neff, 1988). The changing role of teacher assistants and the level of dependence upon their services will require modification and individualization in order to keep pace with the call for full inclusion into regular education.

Peers and Classmates

Traditionally, regular education peers have been engaged in both social interactions and peer tutoring relationships with students with severe disabilities (see Chapter 11, this volume, for a comprehensive review of the effects of these patterns upon children's social relationships). Peer tutoring programs have been reported as effective approaches for teaching students with disabilities in regular classes (Maheady, Sacca, & Harper, 1988), and research on this model has documented short-term benefits such as observable academic gains, the modification of undesirable behaviors, and increasing the amounts of individual attention a student receives (Krouse, Gerber, & Kaufman, 1981; Leyser & Gottlieb, 1981). However, as Krouse et al. cautioned, the long-term social effects of this practice have yet to be examined carefully, especially in terms of the ultimate impact of peer tutorial relationships upon peer cooperation and mutual concern.

A more recent development has involved including peers as members of planning teams for students with disabilities so that they become collaborators in educational decision making (Schattman, 1989; Vandercook et al., 1989). In schools in Minnesota, Vermont, and in various locations in Canada, some local planning teams have invited classmates to participate in the design of educational programs based upon the presumption that they have student-centered perspectives that would be relevant to meaningful educational planning. On a less formalized level than planning teams, students often are creative problem solvers who can assist teachers in designing ways for students to become meaningfully involved in regular class activities. Little is known about the effects of peers on planning teams and few procedures or guidelines are available to ensure that student confidentiality is maintained; furthermore, it would seem important that nondisabled students are not called upon to assume a level of responsibility that makes them uncomfortable. The inclusion of peers on planning teams and as classroom-based problem solvers has potential, but the process must ensure that the intended benefits are forthcoming and safeguards are in place; at least one systematic research effort involving peers in such roles is now ongoing and data will be available regarding various outcomes after a 2-year time period (I.M. Evans & C.L. Salisbury, personal communication, January 8, 1990).

Administrators

School administrators are a vital link in the development and maintenance of integrated education. At some point in the process, changes must be reflected in board of education policies and practices in the form of budgetary accommodations, the redefinition of job roles and functions, and hiring practices (Canadian Education Association, 1985; Giangreco, 1989a; Villa & Thousand, 1990). At a more immediate level, Villa and Thousand suggested that administrators must engage in a variety of supportive measures to facilitate integration, such as creating mechanisms for teamwork and consensus building to occur (e.g., through provision of release time), encouraging and rewarding creativity and collaboration, and developing peer-teacher support networks. Clearly, schoolwide or systemwide integration efforts will require the active support of district-level administrators, with school principals and special education counterparts serving as key people in school-level changes.

RESEARCH RECOMMENDATIONS

1. *We need to examine the effects of various components of full-inclusion models upon academic achievement, social-behavioral skills, social attitudes, and interpersonal relationships between children.* A great deal of research has been carried out in regular education settings where children with and without severe disabilities generally attended separate classes but were exposed to different interaction experiences, such as peer tutoring versus special friendship play relationships. Based upon these data, we can confidently state that virtually any form of structured contact has resulted in more positive

BEST COPY AVAILABLE

attitudes and experiences than physical exposure alone. There is also some evidence to suggest that less hierarchical friendship interactions will be associated with more positive outcomes than hierarchical tutoring relationships alone, where the nonhandicapped child's only experience with the child with severe disabilities is to serve as a peer tutor. In addition, social contact with nondisabled children has been related to increased mastery of IEP goals by students with severe disabilities, and the research on cooperative learning shows no ill effects associated with integration upon the achievement of nondisabled children participating in isolated learning experiences with children with moderate to severe disabilities (see Meyer & Putnam, 1988, for a comprehensive review of these data).

However, virtually all these data were collected for children who spent the vast majority of their school day in separate environments—that is, in different classrooms. To date, no evidence exists regarding the effects of different components of a full-inclusion model upon student achievement, attitudes, social competence, and friendships. For example, what kind of impact would involvement of typical peers in instructional planning (as in MAPS, Vandercook et al., 1989) have upon children's achievement, friendships, and so on? Would team teaching be more or less facilitative of student mastery of IEP goals in comparison to other staffing models, such as consultant teacher services? Which types of full-inclusion models would ultimately be associated with the development of informal social support networks in the community through the attainment of social competence, positive attitudes, and feelings of friendship by nondisabled children toward their peers with severe disabilities? Many other specific research questions might be and should be formulated once the actual components of various full-inclusion models have been articulated more clearly and field tested in schools and classrooms. But above all, as "integration" has always carried many different meanings ranging from mere physical proximity to actual structured contact between children, "inclusion" must be specified and the important variables relating to outcomes for children must be evaluated systematically.

2. *We need some basis for achieving a balance between the needs of students with severe disabilities for intensive skill instruction and community-based instruction on the one hand and regular classroom integration and social interaction experiences on the other.* Recommendations continue to abound regarding the percentages of time students with severe disabilities should spend receiving instruction in the community during the school day at various ages—that is, outside the school and thus away from nondisabled peers. These recommendations are based upon the more general evidence that students with severe disabilities do not easily generalize what they have learned in one environment (e.g., the classroom) to another (e.g., the criterion community settings), thus leading to the logical conclusion that new skills should be taught directly to students in those criterion settings—in the community. But while this might seem a logical conclusion, there are no data whatsoever to suggest how much community instruction at what ages is needed. Nor do data exist regarding any possible "costs" that such community-based instruction might incur to the extent that it involves more segregation from peers and the school community. It may simply be impossible to empirically validate the relative effects of spending varying percentages of time in school versus nonschool/community environments across the school years. Historically, this has been the sort of longitudinal research question that we have never been able to answer with any confidence because of both logistical complications and the multiple sources of (intended and unintended) influences upon learner outcomes.

Yet, while we may never acquire the experimental sophistication to answer such a question empirically, we clearly need to temper our eagerness to make enthusiastic and detailed prescriptions based solely upon the biases of the individual writer. Perhaps some combination of a more thorough theoretical exploration of the various implications would help, and researchers might collect some evidence regarding the potential of the school as a source of learning criterion skills at different ages. For example, does the elementary school include potentially valuable learning experiences such as social competence routines (e.g., turn taking, getting ready, finishing, and putting away) and essential early social interaction opportunities (i.e., being part of one's peer group) that do relate to skill mastery and valued social outcomes? How does this compare to the opportunities available to secondary-age students in school versus nonschool settings? In the interim as we await the results of such systematic study, social validation research might be conducted to support the kinds of practices we do implement for students. At the very least, we should have more information about the importance that parents and professionals place on different experiences for children. We might even try to find creative and valid ways to ask the children themselves. . . . And at some level, the question might not be unlike that personal balance that each of us strives to attain between "work" and "play" in our lives: How can we strike a similar balance for a child with severe disabilities?

3. *Much more research and development is needed to validate those aspects of various curricular adaptation models that will result in positive educational outcomes for students.* Within the past 5 years, we have witnessed the emergence of significant support for full inclusion—education for all children in the regular classroom—as a philosophical principle. Entire books have appeared discussing both the principle and the practice of full inclusion. And, we can point to examples of regular classroom instruction, with the needed instructional supports, for individual students with severe disabilities as well as for all students with severe disabilities in some schools and even entire school districts. Nevertheless, there is little that we can tell others about how best to modify and adapt curricula for these students based upon actual data regarding student accomplishments using those approaches. Good ideas such as overlapping curricular objectives to enable us to meet the needs of a student whose educational goals are greatly discrepant from his or her typical peers must be translated into guidelines that have been developed, field tested, and validated on behalf of real children in typical schools.

4. *Research is similarly needed on the effects of varied instructional practices and teacher behaviors upon the academic and social integration of students.* Again, only the research on cooperative learning and any generalizations we might draw from regular education initiatives such as ALEM (Wang & Birch, 1984) give us any help here. Cooperative learning as an instructional grouping strategy can be related to various positive social and academic outcomes for students in comparison to either individualistic or competitive structures. And ALEM provides one model of individualizing instruction for classrooms that reflect a considerable level of diversity. Areas that beg investigation, however, include the application of various technologies such as computer-assisted instruction (CAI) and even combinations of technology and different grouping and goal structures. A variation of the early aptitude-treatment-interaction (ATI) research might be useful to explore the effects of different teaching styles upon the attainment of different educational goals for students. And finally, can we identify teacher behaviors and variations in teaching styles that are associated with positive learner outcomes and can be taught to teacher trainees and inservice teachers?

5. *If community integration and participation is the ultimate objective of our educational system, we may need to reevaluate the individualized educational objectives traditionally posed both for students with disabilities and those without disabilities.* We know very little about the actual impact of having learned a particular skill upon the individual's success in criterion community environments. For example, we have long focused upon teaching persons with disabilities specific job skills that related to task performance, only to learn that employees most often lost their jobs for reasons that had more to do with social competence than the quality of their work. Vandercook's (1989) study is a rare example of a demonstration that learning a particular skill (e.g., how to play appropriately with an age-appropriate toy) was related to a desirable positive learner outcome (e.g., increased cooperative participation with nondisabled peers). Once again, our decisions about what to teach students—with disabilities and nondisabled—have been based more upon our individual biases and traditions than upon evidence that what students are learning really makes a difference in their lives. This situation is also unlikely to change unless we begin to specify the kinds of long-term, positive outcomes we expect for per-

BEST COPY AVAILABLE

sons with severe disabilities. In the absence of data, the "criterion of ultimate functioning" posed by L. Brown and his colleagues (1976) was a good start. By now, however, we could begin to track the effects of different emphases in students' IEPs upon their development and social adjustment. Documentation of long-term planning and systematic evaluation of various IEP outcomes should be the focus of longitudinal research efforts and a requirement of daily practice at the state level.

6. *Validated systems-change strategies are needed to assist schools, districts, and regions in their changeover from segregated models to integrated, full-inclusion educational models.* Special education research is historically rooted in educational psychology, a tradition that emphasizes the controlled experiment and intervention at the individual unit of analysis level. Ethnographic research paradigms and multivariate research technologies that allow for the documentation of multiple and unintended influences and effects must be expanded to evaluate systems-change efforts judged to show varying degrees of success. New paradigms or strategies for knowledge production might need to be developed to investigate complex systems-change issues that go far beyond the individual child, teacher-child dyad, or even classroom level. Our rigid adherence to certain paradigms in research and evaluation—reflected most clearly in publication and funding—must give way to increased willingness to utilize alternative evaluative methods that might be equally or better suited to answer the kinds of questions that continue to elude us.

7. *We need to better understand the ways in which professionals who have traditionally functioned as special and regular educators can work together to meet the needs of the diverse student population of today's schools.* Our school districts are staffed by teachers and other professionals who have a history of working with children in isolation from one another. The teacher education programs that train those professionals are similarly separate. How can we best prepare professionals who can both teach children well and work together and support one another in order to do even better? How do we generate both teacher attitudes and skills that support learning across the full range of students' abilities and needs? Closely related to this staffing issue is more intense scrutiny of the fundamental structure of classrooms: What would be the effects of alternatives to age-graded classes (such as family and other cross-age groupings more common in a country such as New Zealand) upon student learning, behavior, and social relationships? As we come to accept and value the diversity of today's student population, perhaps we can begin to evaluate more fundamental reforms and even major restructuring efforts that could better assist our school system to meet the needs of the children of today who will become the society of tomorrow.

SUMMARY AND CONCLUSIONS

As the field moves toward full-inclusion models in America's schools, we shall continue to confront the challenge of individualizing instruction to meet unique educational needs on behalf of students with severe disabilities. The status of regular class instruction—with special service supports and resources—is at a formative and crucial stage of development. Many educators have pointed to the values that support full inclusion, the clear and compelling failures of exclusionary and segregated models, and the logic of providing services to students in their neighborhood schools and classrooms as perhaps the most promising practice for the coming years. If regular class integration is to move beyond its current status as primarily an exemplary model available only in some regions to a very few children to one that is generally available, both systems-change research and systematic evaluations of the effects of our practices upon outcomes for children will be critical. Such research would not be focused upon whether we should integrate children with disabilities into the regular classroom with their peers—this is a value judgment regarding what we want our society to look like. Instead, research must be designed to gather the necessary information to help in the design of increasingly effective and creative ways to expand the educational and social opportunities to students with all levels of ability and diverse needs. In combination with an inclusionary values base and sound logic and theory to guide us where data continue to be absent, research will continue to serve as an important impetus to shape educational and social policy and practice.

REFERENCES

Anderson, L.W. (1985). A retrospective and prospective view of Bloom's "Learning for Mastery." In M.C. Wang & H.J. Walberg (Eds.), *Adapting instruction to individual differences* (pp. 254–268). Berkeley, CA: McCutchan.

Asher, S.R., & Taylor, A.R. (1981). The social outcomes of mainstreaming: Sociometric assessment and beyond. *Exceptional Education Quarterly, 1*, 13–30.

Ayres, B. (1988, September). Integration: A parent's perspective. *Exceptional Parent*, pp. 22–25.

Ballard, M., Corman, L., Gottlieb, J., & Kaufman, M.J. (1977). Improving the social status of mainstreamed retarded children. *Journal of Educational Psychology, 69*, 605–611.

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M., Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of The Association for the Severely Handicapped, 7*(2), 17–27.

Berkson, G., & Landesman-Dwyer, S. (1977). Behavioral research on severe and profound mental retardation. *American Journal of Mental Deficiency, 81*, 428–455.

Berres, M., & Knoblock, P. (Eds.). (1987). *Program models for mainstreaming: Integrating students with moderate to severe disabilities*. Rockville, MD: Aspen.

Bigge, J. (1988). *Curriculum based instruction for special education students*. Mountain View, CA: Mayfield.

Biklen, D. (1985). *Achieving the complete school: Strategies for effective mainstreaming*. New York: Teachers College Press.

Biklen, D. (Producer). (1988). *Regular lives* [Video]. Washington, DC: State of the Art.

Bloom, B.S. (1956). *Taxonomy of educational objectives: Handbook I. Cognitive domain*. New York: David McCay Co.

Bogdan, R. (1983). "Does mainstreaming work?" is a silly question. *Phi Delta Kappan, 64*, 427–428.

Bricker, D. (1978). A rationale for the integration of handicapped and nonhandicapped school children. In M.J. Guralnick (Ed.), *Early intervention and the integration of handicapped and nonhandicapped children* (pp. 3–26). Baltimore: University Park Press.

Brost, M., & Johnson, T. (1986, October). *Special education does not mean special classes: Two parents' observations about Louisville, Kentucky's experiences in integrating special and regular education systems and students*. Madison: Wisconsin Coalition for Advocacy.

Brown, F., Evans, I., Weed, K., & Owen, V. (1987). Delineating functional competencies: A component model. *Journal of The Association for Persons with Severe Handicaps, 12*, 117–124.

Brown, L., Branston, M.B., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979). A strategy for developing chronological-age-appropriate and functional curricular content for severely handicapped adolescents and young adults. *Journal of Special Education, 13*, 81–90.

Brown, L., Long, E., Udvari-Solner, A., Davis, L., Van Deventer, P., Ahlgren, C., Johnson, F., Gruenewald, L., & Jorgensen, J. (1989). The home school: Why students with severe intellectual disabilities must attend the schools of their brothers, sisters, friends, and neighbors. *Journal of The Association for Persons with Severe Handicaps, 14*, 1–7.

Brown, L., Long, E., Udvari-Solner, A., Schwartz, P., Van Deventer, P., Ahlgren, C., Johnson, F., Gruenewald, L., & Jorgensen, J. (1989). Should students with severe intellectual disabilities be based in regular or special education classrooms in home schools? *Journal of The Association for Persons with Severe Handicaps, 14*, 8–12.

Brown, L., Nietupski, J., & Hamre-Nietupski, S. (1976). The criterion of ultimate functioning and public school services for severely handicapped students. In M.A. Thomas (Ed.), *Hey don't forget about me: Education's investment in the severely, profoundly, and multiply handicapped* (pp. 2–15). Reston, VA: Council for Exceptional Children.

Brown, L., Nisbet, J., Ford, A., Sweet, M., Shiraga, B., York, J., & Loomis, R. (1983). The critical need for nonschool instruction in education programs for severely handicapped students. *Journal of The Association for the Severely Handicapped, 8*(3), 71–77.

Brown, L., Rogan, P., Shiraga, B., Zanella, K., Albright, K., Kessler, K., Bryson, F., Van Deventer, P., & Loomis, R. (1987). *A vocational followup evaluation of the 1984 to 1986 Madison Metropolitan School District graduates with severe intellectual disabilities* (Monograph). Seattle, WA: The Association for Persons with Severe Handicaps.

Bryan, T. (1974). Peer popularity of learning disabled children. *Journal of Learning Disabilities, 7*, 621–625.

Campbell, C., Campbell, S., Collicott, J., Perner, D., & Stone, J. (1988, June). Individualized instruction. *Education New Brunswick—Journal Education, 3*, 17–20.

Campbell, P.H. (1987). The integrated programming team: An approach for coordinating professionals of various disciplines in programs for students with severe and multiple handicaps. *Journal of The Association for Persons with Severe Handicaps, 12*, 107–116.

Canadian Education Association. (1985). *Mainstreaming. Some issues for school boards*. Toronto: Author.

Code of Federal Regulations. (1987, July). *34*, §300–399.

Deno, S., & Mirkin, P. (1977). *Data-based program modification: A manual*. Reston, VA: Council for Exceptional Children.

Department of Education, State of Hawaii v. Katherine D., 727 F.2d 809 (1983).

Deutsch, M. (1949). A theory of cooperation and competition. *Human Relations, 2*, 129–152.

Education for All Handicapped Children Act of 1975, §612, 20 U.S.C. §§1401–1485.

Eichinger, J. (1990). Effects of goal structures on social interaction between elementary level nondisabled students and students with severe disabilities. *Exceptional Children, 56*, 408–417.

Espino v. Besteiro, 520 F.Supp. 905 (1981).

Evans, I.M., Brown, F.A., Weed, K.A., Spry, K.M., & Owen, V. (1987). The assessment of functional competencies: A behavioral approach to the evaluation of programs for children with disabilities. In R.J. Prinz (Ed.), *Advances in behavioral assessment of children and families* (Vol. 3, pp. 93–121). Greenwich, CT: JAI Press.

Evans, I.M., & Meyer, L.M. (1987). Moving to educational validity: A reply to Test, Spooner, and Cooke. *Journal of The Association for Persons with Severe Handicaps, 12*, 103–106.

Falvey, M.A. (1989). *Community-based curriculum: Instructional strategies for students with severe handicaps* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Fenwick, V. (1987). The Edward Smith School program: An integrated public school continuum for autistic children. In M. Berres & P. Knoblock (Eds.), *Program models for mainstreaming: Integrating students with moderate to severe disabilities* (pp. 261–286). Rockville, MD: Aspen.

Flynn, G., & Kowalczck-McPhee, B. (1988). *A school system in transition*. Kitchener, Ontario: Waterloo Region Roman Catholic Separate School Board.

Ford, A., & Davern, L. (1989). Moving forward with school integration: Strategies for involving students with severe handicaps in the life of the school. In R. Gaylord-Ross (Ed.), *Integration strategies for students with handicaps* (pp. 11–33). Baltimore: Paul H. Brookes Publishing Co.

Ford, A., Foster, S.B., Searl, S.J., & Taylor, S.J. (1984). *The Brown School Model Project: A description*. Syracuse, NY: Syracuse University, The Center on Human Policy.

Ford, A., Schnorr, R., Meyer, L., Davern, L., Black, J., & Dempsey, P. (1989). *Syracuse community-referenced curriculum guide for students with moderate and severe disabilities*. Baltimore: Paul H. Brookes Publishing Co.

Forest, M. (1984). *Education/integration: A collection of readings on the integration of children with mental handicaps into regular school systems*. Downsview, Ontario: G. Allan Roeher Institute.

Forest, M. (1987). *More education/integration: A further collection of readings on the integration of children with mental handicaps into regular school systems*. Downsview, Ontario: G. Allan Roeher Institute.

Forest, M. (1989). *It's about relationships*. Toronto: Frontier College Press.

Fox, W., Thousand, J., Williams, W., Fox, T., Towne, P., Reid, R., Conn-Powers, C., & Calcagni, L. (1987). *Best educational practices '87: Educating learners with severe handicaps*. Burlington: University of Vermont, Center for Developmental Disabilities.

Frank, S., & Uditsky, B. (1988). On campus: Integration at university. *Entourage, 3*(3), 33–40.

Froland, C., Pancoast, D., Chapman, N., & Kimboko, P. (1981). *Helping networks and human services*. Beverly Hills: Sage Publishing.

Fuchs, D., & Fuchs, L. (1989). Exploring effective and efficient prereferral interventions: A component analysis of behavioral consultation. *School Psychology Review, 18*, 260–279.

Gartner, A., & Lipsky, D. (1987). Beyond special education: Toward a quality system for all students. *Harvard Educational Review, 57*, 367–395.

Giangreco, M.F. (1986). Effects of integrated therapy: A pilot study. *Journal of The Association for Persons with Severe Handicaps, 11*, 205–208.

Giangreco, M.F. (1989a). Facilitating integration of students with severe disabilities: Implications of "planned change" for teacher preparation programs. *Teacher Education and Special Education, 12*, 139–147.

Giangreco, M.F. (1989b). Making related service decisions for students with severe handicaps in public schools: Roles, criteria, and authority. *Dissertation Abstracts International, 50*(6), 1624-A. (University Microfilms No. 8919516)

Giangreco, M.F., Cloninger, C., & Iverson, V. (1990). *Cayuga-Onondaga Assessment for Children with Handicaps—Version 6.0*. Stillwater: National Clearing House of Rehabilitation Training Materials at Oklahoma State University.

Giangreco, M.F., & Meyer, L.H. (1988). Expanding service delivery options in regular schools and classrooms for students with severe disabilities. In J. Graden, J. Zins, & M. Curtis (Eds.), *Alternative educational delivery systems: Enhancing instructional options for all students* (pp. 241–267).

Washington, DC: National Association of School Psychologists.

Giangreco, M.F., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in educational settings: Pursuing the least restrictive option. *Pediatric Physical Therapy, 1*, 55–63.

Gickling, E., & Armstrong, D.L. (1978). Levels of instructional difficulty as related to on-task behavior, task completion and comprehension. *Journal of Learning Disabilities, 11*, 559–566.

Gilkeson, E.C., Smithberg, L.M., Bowman, G.W., & Rhine, W.R. (1981). Bank Street Model: A developmental-interaction approach. In W.R. Rhine (Ed.) *Making schools more effective: New directions from follow through* (pp. 249–288). New York: Academic Press.

Goetz, L., Guess, D., & Stremel-Campbell, K. (Eds.). (1987). *Innovative program design for individuals with dual sensory impairments*. Baltimore: Paul H. Brookes Publishing Co.

Goodlad, J.I. (1983). A study of schooling: Some findings and hypotheses. *Phi Delta Kappan, 64*, 462–470.

Gresham, F.M. (1982). Misguided mainstreaming: The case for social skills training with handicapped children. *Exceptional Children, 48*, 422–433.

Guess, D., Benson, H.A., & Siegel-Causey, E. (1985). Concepts and issues related to choice-making and autonomy among persons with severe handicaps. *Journal of The Association for Persons With Severe Handicaps, 10*, 79–86.

Hallahan, D.P., Keller, C.E., McKinney, J.D., Lloyd, J.W., & Bryan, T. (1988). Examining the research base of the regular education initiative: Efficacy studies and the Adaptive Learning Environments Model. *Journal of Learning Disabilities, 21*(1), 29–35.

Hardman, M.L., McDonnell, J., & McDonnell, A. (1989). *The inclusive neighborhood school: Educating students with severe disabilities in the least restrictive environment*. Manuscript submitted for publication.

Haring, N., Lovitt, J., Eaton, M., & Hansen, C. (1978). *The fourth R: Research in the classroom*. Columbus, OH: Charles E. Merrill.

Hasazi, S., Gordon, L., & Roe, C. (1985). Factors associated with the employment status of handicapped youth exiting high school from 1979–1983. *Exceptional Children, 51*, 455–469.

Horner, R., McDonnell, J., & Bellamy, G.T. (1986). Teaching generalized skills: General case instruction in simulation and community settings. In R.H. Horner, L.H. Meyer, & H.D.B. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 289–314). Baltimore: Paul H. Brookes Publishing Co.

Horner, R.H., Meyer, L.H., & Fredericks, H.D.B. (Eds.). (1986). *Education of learners with severe handicaps: Exemplary service strategies*. Baltimore: Paul H. Brookes Publishing Co.

Huefner, D.S. (1988). The consulting teacher model: Risks and opportunities. *Exceptional Children, 54*, 403–414.

Hymes v. Harnett County Board of Education, 664 F.2d 410 (4th Cir. 1981).

Irving Independent School District v. Tatro, 104 S.Ct. 3371 (1984).

Jellison, J.A., Brooks, B.H., & Huck, A.M. (1984). Structuring small groups and music reinforcement to facilitate positive interactions and acceptance of severely handicapped students in the regular music classroom. *Journal of Research in Music Education, 32*, 243–264.

Johnson, D.W., & Johnson, R.T. (1984). *Cooperation in the classroom*. Edina, MN: Interaction Books.

Johnson, D.W., & Johnson, R.T. (1986). *Cooperation and competition*. New York: Lawrence Erlbaum Associates.

Johnson, D.W., & Johnson, R.T. (1989). Cooperative learning and mainstreaming. In R. Gaylord-Ross (Ed.), *Integration strategies for students with handicaps* (pp. 233–248). Baltimore: Paul H. Brookes Publishing Co.

Johnson, D.W., Johnson, R.T., & Holubec, E.J. (1986). *Circles of learning: Cooperation in the classroom* (rev. ed.). Edina, MN: Interaction Books.

Johnson, D.W., Johnson, R.T., & Maruyama, G. (1983). Interdependence and interpersonal attraction among heterogeneous and homogeneous individuals: A theoretical formulation and a meta-analysis of the research. *Review of Educational Research, 3*(1), 5–54.

Johnson, D., Maruyama, G., Johnson, R., Nelson, D., & Skon, L. (1981). The effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin, 89*, 47–62.

Johnson, R., Johnson, D.W., DeWeerdt, N., Lyons, V., & Zaidman, B. (1983). Integrating severely adaptively handicapped seventh-grade students into constructive relationships with nonhandicapped peers in science class. *American Journal of Mental Deficiency, 87*(6), 611–619.

Johnson, R., Rynders, J., Johnson, D.W., Schmidt, B., & Haiden, S. (1979). Producing positive interaction between handicapped and nonhandicapped teenagers through cooperative goal structuring: Implications for mainstreaming. *American Educational Research Journal, 16*, 161–168.

Kishi, G. (1988). Long-term effects of different types of contact between peers with and without severe disabilities: Outcomes of integration efforts in Hawaii. *Dissertation Abstracts International, 50* (2), 412-A. (University Microfilms No. 8901837)

Krouse, J., Gerber, M., & Kaufman, J. (1981). Peer tutoring: Procedures, promises, and unresolved issues. *Exceptional Education Quarterly, 1*(4), 107–115.

Leyser, Y., & Gottlieb, J. (1981). Social status im-

BEST COPY AVAILABLE

provement of unpopular handicapped and nonhandicapped pupils: A review. *Elementary School Journal, 81*(4), 228–236.

Lipsky, D.K., & Gartner, A. (Eds.). (1989). *Beyond separate education. Quality education for all.* Baltimore: Paul H. Brookes Publishing Co.

MacMillan, D.L., Jones, R.L., & Aloia, T.F. (1974). The mentally retarded label. A theoretical analysis and review of research. *American Journal of Mental Deficiency, 79*, 241–261.

Madden, N.A., & Slavin, R.E. (1983). Mainstreaming students with mild handicaps: Academic and social outcomes. *Review of Educational Research, 53*, 519–569.

Maheady, L., Sacca, M.K., & Harper, G.F. (1988). Classwide peer tutoring with mildly handicapped high school students. *Exceptional Children, 55*(1), 52–59.

McDonnell, A.P., & Hardman, M.H. (1989). The desegregation of America's schools: Strategies for change. *Journal of The Association for Persons with Severe Handicaps, 14*, 68–74.

Meyer, L.H., & Eichinger, J. (1987). Program evaluation in support of program development: Needs, strategies, and future directions. In L. Goetz, D. Guess, & K. Stremel-Campbell (Eds.), *Innovative program design for individuals with dual sensory impairments* (pp. 313–353). Baltimore: Paul H. Brookes Publishing Co.

Meyer, L.H., Eichinger, J., & Park-Lee, S. (1987). A validation of program quality indicators in educational services for students with severe disabilities. *Journal of The Association for Persons with Severe Handicaps, 12*, 251–263.

Meyer, L.H., & Putnam, J. (1988). Social integration. In V.B. Van Hasselt, P.S. Strain, & M. Hersen (Eds.), *Handbook of developmental and physical disabilities* (pp. 107–133). New York: Pergamon Press.

Natriello, G. (1987). Introduction. In G. Natriello (Ed.), *School dropouts: Patterns and policies* (pp. 1–19). New York: Teachers College Press.

Nevin, A., & Thousand, J. (1987). Avoiding or limiting special education referrals: Changes and challenges. In M.C. Wang, M.C. Reynolds, & H.J. Walberg (Eds.), *Handbook of special education: Research and practice* (pp. 273–286). New York: Pergamon Press.

Panitch, M. (1988). Community college integration: More than just an education. *Entourage, 3*(3), 26–32.

Peck, C., & Semmel, M. (1982). Identifying the least restrictive environment (LRE) for children with severe handicaps: Toward an empirical analysis. *Journal of The Association for the Severely Handicapped, 7*(1), 56–63.

Peterson, N.L., & Haralick, J.G. (1977). Integration of handicapped and nonhandicapped preschoolers: An analysis of play behavior and social interaction. *Education and Training of the Mentally Retarded, 12*, 235–245.

Porter, G. (1988, June). *School integration: Fact, fantasy, or the future?* Paper presented at the International Conference on Special Education, Beijing, China.

Porter, R.H., Ramsey, B., Tremblay, A., Iaccobo, M., & Crawley, I. (1978). Social interactions in heterogeneous groups of retarded and normally developing children: An observational study. In G. Sackett (Ed.), *Observing behavior: Theory and applications in mental retardation* (Vol. 1). Baltimore: University Park Press.

Putnam, J.W., & Rynders, J.E. (1985). *Effects of teacher instruction on promoting cooperative interactions between moderately-severely mentally handicapped and nonhandicapped children.* Minneapolis: University of Minnesota Consortium Institute.

Putnam, J., Rynders, J., Johnson, R., & Johnson, D. (1989). Collaborative skill instruction for promoting positive interactions between mentally handicapped and nonhandicapped children. *Exceptional Children, 55*(6), 550–558.

Reid, R. (1987, Fall). Homecoming: The benefits of educating learning impaired students in their local schools with their non-disabled peers. *The Decision-Maker,* pp. 5–6. (Available from Center for Developmental Disabilities, University of Vermont, Burlington, VT 05405)

Rettig v. Kent City, 539 F. Supp. 769 (1981); 720 F.2d 463 (1983).

Roncker v. Walter, 700 F.2d 1058, cert. denied, 104 S.Ct. 196 (1983).

Rynders, J., Johnson, R., Johnson, D., & Schmidt, B. (1980). Producing positive interaction among Down syndrome and nonhandicapped teenagers through cooperative goal structure. *American Journal of Mental Deficiency, 85*, 268–283.

Sailor, W. (1989). The educational, social, and vocational integration of students with the most severe disabilities. In D.K. Lipsky & A. Gartner (Eds.), *Beyond separate education: Quality education for all* (pp. 53–74). Baltimore: Paul H. Brookes Publishing Co.

Sailor, W., Anderson, J.L., Halvorsen, A.T., Doering, K., Filler, J., & Goetz, L. (1989). *The comprehensive local school: Regular education for all students with disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Sailor, W., & Guess, D. (1983). *Severely handicapped students: An instructional design.* Boston: Houghton Mifflin.

Sailor, W., Halvorsen, A., Anderson, J., Goetz, L., Gee, K., Doering, K., & Hunt, P. (1986). Community intensive instruction. In R.H. Horner, L.H. Meyer, & H.D.B. Fredericks (Eds.), *Education of learners with severe handicaps: Exemplary service strategies* (pp. 251–288). Baltimore: Paul H. Brookes Publishing Co.

Schattman, R. (1989). *Franklin Northwest Supervisory Union: A model for full integration*. Swanton, VT: Franklin NW Supervisory Union.

Semmel, M.I., Gottlieb, J., & Robinson, N.M. (1979). Mainstreaming: Perspectives on educating handicapped children in public schools. In D.C. Berliner (Ed.), *Review of research in education* (pp. 223–278). Washington, DC: American Educational Research Association.

Shevin, M., & Klein, N.K. (1984). The importance of choice-making for students with severe disabilities. *Journal of The Association for Persons with Severe Handicaps*, *9*, 159–166.

Slavin, R., Madden, N., & Leavey, M. (1984). Effects of team assisted individualization on mathematics achievement of academically handicapped and nonhandicapped students. *Journal of Educational Psychology*, *76*, 813–819.

Snell, M.E. (Ed.). (1986). *Systematic instruction of persons with moderate and severe handicaps* (3rd ed.). Columbus, OH: Charles E. Merrill.

Snell, M.E. (1988). Gartner and Lipsky's *Beyond separate education: Quality education for all*—Messages for TASH. *Journal of The Association for Persons with Severe Handicaps*, *13*, 137–140.

Snell, M.E., & Browder, D.M. (1986). Community referenced instruction: Research and issues. *Journal of The Association for Persons with Severe Handicaps*, *11*, 1–11.

Snell, M.E., & Eichner, S. (1989). Integration of students with profound disabilities. In F. Brown & D.H. Lehr (Eds.), *Persons with profound disabilities: Issues and practices* (pp. 109–138). Baltimore: Paul H. Brookes Publishing Co.

Snow, J., & Forest, M. (1987). Circles. In M. Forest (Ed.), *More education/integration: A further collection of readings on the integration of children with mental handicaps into regular school systems* (pp. 169–176). Downsview, Ontario: G. Allan Roeher Institute.

Stacy G. v. Pasadena Independent School District, 547 F. Supp. 61 (1982).

Stainback, S., & Stainback, W. (1985). *Integration of students with severe handicaps into regular schools*. Reston, VA: Council for Exceptional Children.

Stainback, S., Stainback, W., & Harris, K. (1989). Support facilitation: An emerging role for special educators. *Teacher Education and Special Education*.

Stieler, S., Agostinelli, Sr., Leditschke, F., McDonnell, E., Stilman, Sr., & Urbacher, U. (1977). Prosthesis in educational intervention. In K. Cochran & R. Andrews (Eds.), *Health and welfare of children: Proceedings of an interdisciplinary seminar* (pp. 175–80). Brisbane, Australia: Queensland University. (ERIC Document Reproduction No. ED 165-439)

Strain, P.S., & Shores, R.E. (1983). A reply to "Misguided Mainstreaming." *Exceptional Children*, *50*, 271–273.

Strully, J., & Strully, C. (1985). Friendship and our children. *Journal of The Association for Persons with Severe Handicaps*, *10*, 224–227.

Taylor, S.J. (1988). Caught in the continuum: A critical analysis of the principles of the least restrictive environment. *Journal of The Association for Persons with Severe Handicaps*, *13*, 41–53.

Thousand, J., Fox, T., Reid, R., Godek, J., Williams, W., & Fox, W. (1986). *The Homecoming Model: Educating students who present intensive educational challenges within regular education environments*. Burlington: University of Vermont, Center for Developmental Disabilities.

Thousand, J.S., & Villa, R.A. (1989). Enhancing success in heterogeneous schools. In S. Stainback, W. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of regular education* (pp. 89–103). Baltimore: Paul H. Brookes Publishing Co.

Tokarcik v. Forest Hills School District, 665 F.2d 443 (3 cir. 1981).

Uditsky, B., & Kappel, B. (1988). Integrated postsecondary education. *Entourage*, *3*(3), 23–26.

Vandercook, T. (1989). *Performance in the criterion situation for students with severe disabilities*. Paper submitted for publication.

Vandercook, T., York, J., & Forest, M. (1989). The McGill Action Planning System (MAPS): A strategy for building the vision. *Journal of The Association for Persons with Severe Handicaps*, *14*, 205–215.

Villa, R.A., & Thousand, J.S. (1990). Administrative supports to promote inclusive schooling. In W. Stainback & S. Stainback (Eds.), *Support networks for inclusive schooling: Interdependent integrated education* (pp. 201–218). Baltimore: Paul H. Brookes Publishing Co.

Voeltz, L.M. (1980). Children's attitudes toward handicapped peers. *American Journal of Mental Deficiency*, *84*, 455–464.

Voeltz, L.M. (1982). Effects of structured interactions with severely handicapped peers on children's attitudes. *American Journal of Mental Deficiency*, *86*, 380–390.

Voeltz, L.M. (1984). Program and curricular adaptations to prepare children for integration. In N. Certo, N. Haring, & R. York (Eds.), *Public school integration of severely handicapped students: Rational issues and progressive alternatives* (pp. 155–183). Baltimore: Paul H. Brookes Publishing Co.

Voeltz, L.M., & Evans, I.M. (1983). Educational validity: Procedures to evaluate outcomes in programs for severely handicapped learners. *Journal of The Association for the Severely Handicapped*, *8*(1), 3–15.

Walberg, H.J., & Wang, M.C. (1987). Effective educational practices and provisions for individual dif-

BEST COPY AVAILABLE

ferences. In M.C. Wang, M.C. Reynolds, & H.J. Walberg (Eds.), *Handbook of special education: Research and practice* (pp. 113–128). New York: Pergamon Press.

Wang, M.C., & Birch, J.W (1984) Effective special education in regular classes. *Exceptional Children, 50*. 391–398.

Wang, M., Gennari, P., & Waxman, H. (1985). The Adaptive Learning Environments Model: Design, implementation, and effects. In M. Wang & H. Walberg (Eds.), *Adapting instruction to individual differences* (pp. 191–235). Berkeley, CA: McCutchan.

Wang, M., Reynolds, M., & Schwartz, L. (1988). Adaptive instruction: An alternative educational approach for students with special needs. In J. Graden, J. Zins, & M. Curtis (Eds.), *Alternative educational delivery systems: Enhancing instructional options for all students* (pp. 199–220). Washington, DC: National Association of School Psychologists.

Wehlage, G.G., & Rutter, R.A. (1987). Dropping out: How much do schools contribute to the problem? In G. Natriello (Ed.), *School dropouts: Patterns and policies* (pp. 70–88). New York: Teachers College Press.

Wilcox, J., Sbardellati, E., & Nevin, A. (1987). Integrating a severely handicapped girl in a first grade classroom with cooperative learning groups. *Teaching Exceptional Children, 20*(1), 61–63.

Williams, W., Fox, T., & Fox, W. (1988) *Integrating the instruction of students with intensive educational needs into regular education classrooms: Individual program design procedures manual.* Burlington: University of Vermont, Center for Developmental Disabilities.

Williams, W., Fox, W., Christie, L., Thousand, J., Conn-Powers, M., Carmichael, L., Vogelsburg, R.T., & Hull, M. (1986). Community integration in Vermont. *Journal of The Association for Persons with Severe Handicaps, 11*, 294–299.

Wilson, R. (1987). Direct observation of academic learning time. *Teaching Exceptional Children, 19*(2), 13–17.

York, J., & Rainforth, B. (1987). Developing instructional adaptations. In F.P. Orelove & D. Sobsey (Eds.), *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 183–217). Baltimore: Paul H. Brookes Publishing Co.

York, J., & Vandercook, T. (in press). Strategies for achieving an integrated education for middle school aged learners with severe disabilities. *Remedial and Special Education.*

York, J., Vandercook, T., Caughey, E., & Heise-Neff, C. (1988, December). *Does an "Integration Facilitator" facilitate integration?* Minneapolis: University of Minnesota, Institute on Community Integration.

Section 3

How to Conduct Cooperative Learning Activities

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 3
HOW TO CONDUCT COOPERATIVE LEARNING ACTIVITIES

PURPOSE

This section is designed to give participants practical suggestions for conducting cooperative activities. It walks through what the teacher does to plan for a cooperative lesson, how to deliver a cooperative lesson, and how to reflect on its' success.

PARTICIPANT OUTCOMES

1. Participants will discuss the 18 steps involved in carrying out a cooperative activity.
2. Participants will be able to teach each of the eight sections of the "teacher's role" chapter from *Cooperation in the Classroom* to a classmate.

READING ASSIGNMENT

Read Chapter 2, "The Teacher's Role in Cooperative Learning", from *Cooperation in the Classroom.*

CONTENT FOCUS

Perhaps the most difficult work in teaching with cooperative groups is the planning that must occur prior to the activities. Much of the effort occurs "up front" as teachers make many decisions, such as how students will be assigned to groups, how many students will be in a group, how to assure positive interdependence and individual accountability, and how students will evaluate themselves. It can be a complex task because there are many variables that influence how the groups will be set up — among them are the nature of the activity, the time available, and the characteristics of the students themselves.

It is not unusual for an educator to report that cooperative learning groups don't function well in his or her class because "high achieving" or "low achieving" students seem to gravitate to one another, fulfilling the adage that "birds of a feather flock together." When I hear this complaint, I realize that a critical aspect of successful cooperative learning—heterogeneous groups—is violated. There are a number of ways to form heterogeneous groups, whether by planful teacher assignment or by random assignment. As you read this chapter. pay particular attention to methods for assigning students to reduce isolation and maximize heterogeneity.

Teachers also have a role in monitoring the groups in order to determine how students are achieving the instructional goal and how well they are cooperating. Students need constructive and specific feedback on how they are performing in their groups. The major categories of teacher actions are:

(1) decisions to be made in advance

(2) setting the lesson

(3) monitoring and intervening

(4) evaluating and feedback.

The figure on the "Teacher's Role." with the footsteps leading through the major decision points should be helpful in learning the progression of planning and implementing cooperative activities.

Several examples of cooperative learning lessons are provided in "The Teacher's Role in Cooperative Learning" chapter (Working Story Problems in Math Cooperatively), in "The Process of Cooperative Learning" chapter (Endangered Species Unit) you read for our last section, and at the end of Section 8 (Making Clay Float). Read over these lesson plans and begin to formulate ideas for a lesson of your own. You will be developing a cooperative lesson plan in Section 5.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. Using the information in Chapter 2 from Cooperation in the Classroom and the lesson plan form on P 2:36. adapt one of your current lessons into a cooperative lesson. Try it out with your class and write a brief paper about the results. Share this with your mentors. Send a copy of the plan and your reactions to your instructor. Be prepared to share about your lessons during the audioconference.
2. Observe a person teaching an activity that involves cooperation. If it is possible. have that person be a village elder (woman or man) teaching an activity that involves cooperation. Devise a checklist for observing the elements of the teacher's role. What elements of the teacher's role are included in the lesson you observed? What elements were omitted? How important were they? Discuss your observatyion with your mentors.With permission, videotape what you are observing and include your reactions and reflection.

Section 4

Positive Interdependence: The Essence of Cooperative Learning

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 4

POSITIVE INTERDEPENDENCE: THE ESSENCE OF COOPERATIVE LEARNING

PURPOSE

This section covers one of the most essential elements of cooperative learning: positive interdependence. To conduct meaningful heterogeneous group activities, teachers must be certain that the group members possess a "sink or swim" feeling. A conceptual definition of cooperative learning will be provided along with examples of eight types of positive interdependence.

PARTICIPANT OUTCOMES

1. Participants will write a conceptual definition of positive interdependence in their own words.

READING, LISTENING AND VIEWING ASSIGNMENTS:

1. Read Chapter 4, "Creating Positive Interdependence," from *Cooperation in the Classroom.*

CONTENT FOCUS

The true spirit of cooperation comes from positive interdependence: I can't reach this goal on my own— we can only reach it together. When children in a group truly feel they need each other to attain a learning or play goal, you have cooperative learning.

In our pasts, many of us have participated in group work where everyone basically worked on their own. In these groups, group members really didn't coordinate and negotiate what they were doing, or have a sense that they were striving for a common goal. There was little "*esprit de corps*" among group members. Sometimes group members even competed against one another. What was missing in a such a group was positive interdependence, a feeling that "we are in this together." and "I can't do it alone, but we can."

Johnson and Johnson describe positive interdependence as the perception that you are linked with others in a way that you cannot succeed unless others do (and vice versa) and that such others' work benefits you and your work benefits them. Some activities naturally lend themselves to positive interdependence, such as the functioning of an operating room in a hospital, as observed on the videotape "Cooperation in the Workplace." Scaling Mt. McKinley in Alaska is a truly interdependent venture — especially if you're the one dangling from the rope. A dog sled team functions interdependently, as do the participants on a whale hunt. In some Alaskan villages fishing is a truly cooperative venture: The men haul the fish to camp, the women cut the fish, and the men, women, and children work together to hang the fish.

Unfortunately, positive interdependence doesn't always come naturally in the classroom and activities must be planned to foster interdependence. There are at least eight types of positive interdependence:

1. Goal Interdependence
2. Resource Interdependence
3. Task Interdependence
4. Role Interdependence
5. Identity Interdependence
6. Outside Enemy Interdependence
7. Fantasy Interdependence
8. Environmental Interdependence.

Each category of interdependence is discussed in the assigned chapter by Johnson and Johnson. All cooperative activities possess goal interdependence, where students strive to achieve a common goal. However, goal interdependence may not be enough to link students together in a spirit of cooperation. Everyone, including children with special needs, likes to feel that they are needed in the group and that they have something to contribute.

It is not always easy to detect whether or not your students are positively interdependent when they are engaged in their cooperative groups. By learning the eight types of interdependence, you can begin to observe examples of positive interdependence and the behaviors students display when they participate and when they have "We-Not Me" feeling in their group.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. Positive Interdependence:

   With a learning partner in this course, discuss the eight types of positive interdependence described by Johnson and Johnson.Think of one example for each type from your own experience. Share your examples with one another. Write down a brief example of each of the types of positive interdependence to be shared with your mentors.

2. Now, apply these types of positive interdependence to the culture of the community in which you teach. Your assignment is to provide examples that would be culturally relevant to the Alaska Native way of life. Examples of activities for children as well as adults are appropriate. Write down a brief example of each type of positive interdependence and share it with your mentors.

3. Be prepared to share examples during the audioconference.

Section 5

Lesson Planning And Cooperative Structures

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 5
LESSON PLANNING AND COOPERATIVE STRUCTURES

PURPOSE

This section provides a practical orientation to developing cooperative learning lesson plans for heterogeneous groups. A structured lesson plan form is available to guide planning and to help you determine whether the key elements of cooperative learning are embedded in the plan. Participants will have an opportunity to develop a lesson plan, try it out and share their experience with classmates.

PARTICIPANT OUTCOMES

1. Using the lesson plan form provided on page 2:36 of *Cooperation in the Classroom*, participants will develop a cooperative learning lesson for a heterogeneous group of students.
2. Participants will conduct their lesson in a classroom.
3. Participants will share their experience of planning and conducting a lesson and critique their own lesson.

READING ASSIGNMENTS

1. Study the lesson plans and the lesson plan forms from *Cooperation in the Classroom*. You will find lesson plans for various grade levels at the end of most of the chapters in this book. Another good source for lesson plans that focus on students with cultural, linguistic and learning differences who are educated in inclusive classrooms is *Fitting In* by Mary Male and Mary Anderson (1990).
2. Review the lesson plan examples included with this session's materials.

CONTENT FOCUS

Given an understanding of the principles of cooperative learning and the teacher's role in setting up cooperative groups, educators are able to plan cooperative activities. Because so much of the success of conducting cooperative activities is based on advanced planning the lesson, it often helps to use a lesson plan outline to guide the process. The basic plan we will use is presented in *Cooperation in the Classroom* (2:36).

The lesson plan form helps educators to think through setting the academic task, making decisions about group size and assignment to groups, structuring positive interdependence and individual accountability, and identifying collaborative skills to be taught. Last, but not least, on the lesson plan form is how you plan to observe the groups (or have students observe themselves) and how you will have engage students in reflecting on their group efforts and cooperative behaviors, referred to as "processing." This is an important aspect of cooperative learning that often gets neglected by teachers.

After using the form repeatedly, you will find yourself automatically planning cooperative activities with all the elements incorporated. Some cooperative activities, especially the quick "informal" groups, such as 'turn to your neighbor..." can be conducted without a lesson plan. Other, more formal activities will require a written plan. You may want to modify the form to suit your own needs. Teachers who save their lesson plans can reuse them and share them with other teachers in their school and beyond.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. Complete the reading assignment to familiarize yourself with the lesson plan forms and sample lesson plans.
2. Using the lesson plan form in Cooperating in the classroom (2:36), plan a lesson that you can conduct with a heterogeneous group of students. You are encouraged to plan this lesson with another project participant. You may plan the lesson for any curricular area and any group or age level of children.

   If you are working with young children, you are encouraged to read the Chapter 7, "Supporting Young Children's Development Through Cooperative Activities" from *Cooperative Learning and Strategies for Inclusion.* An example of a cooperative lesson plan on the story Blueberries for Sal is given. Also, case studies are provided that touch upon the topics of scheduling, material selection, technology, and environmental design.

   Try to begin with an idea that is simple and straightforward. Avoid a complicated activity of long duration with lots of components. Also, keep the group size small (pairs or triads).
3. Conduct the lesson in a classroom and videotape your lesson.
4. Informally evaluate the activity, soliciting feedback from another participant or observer such as the teaching assistant who is working with you, the students, another teacher, or a parent,
5. Be prepared to discuss your experience with other course participants through an audio-conference. What did you like about your lesson? What went well? What didn't go so well?What would you do differently? Send a copy of your plan to your instructor with your reactions.

Section 6

Teaching Cooperative Skills

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 6
TEACHING COOPERATIVE SKILLS

PURPOSE

This module covers the topic of social and cooperative skill development through the use of cooperative groups. Participants will be provided with a rationale for addressing social and cooperative skills in group activities and with methods for teaching skills.

PARTICIPANT OUTCOMES

1. Participants will describe why social and cooperative skills should be addressed in educational environments.
2. Participants will explain how social skills are taught.
3. Participants will give examples of the types of social skills that can be addressed in cooperative groups.

READING AND VIEWING ASSIGNMENTS:

1. Read Chapter 5, "Teaching Students Cooperative Skills," from *Cooperation in the Classroom.*
2. View the ASCD videotape "Social Skills and Cooperative Learning."

CONTENT FOCUS

Although children are born with a genetic propensity to affiliate or consort with others, they are not born with the skills needed for social interaction. Social skills are learned, not instinctive. Assisting children in the development of these skills is an educator's job.

Possessing good interpersonal skills is critical to success and happiness in families, school, vocational endeavors, and in the community. Research tells us that young adults with and without disabilities most who fail in their first jobs fail because of lack of social skills rather than competence to perform the job. In 1982 the Center for Public Resources published "Basic Skills in the U.S. Workforce," a national survey of businesses, labor unions, and educational institutions. They found that 90% of the respondents were fired for poor job attitudes, poor interpersonal relationships and inappropriate behavior—not because they lacked basic and technical skills.

A subset of social skills, cooperative skills, are those needed to effectively work and play with others. They are group skills which children develop as they have opportunities to observe others, communicate, plan, negotiate, and settle disagreements. Cooperative skills cannot be learned through lecture or in theory and they cannot be learned effectively in segregated settings. They require opportunities for observation of typical behaviors, direct instruction, practice, feedback about performance, and, most of all perseverance.

Educators determine, with input from others, what cooperative skills students need. Although a class as a whole may be working on a sequence of cooperative skills over a period of time (perhaps 3 or 4 skills each quarter), an individual student may have personal cooperative skill objectives. The particular skills taught will vary according to the age level of the student and the perceived need for specific social/cooperative skills. For example, some of the skills taught in elementary grades are staying with the group, sharing materials, taking turns, encouraging one another, and speaking in quiet voices. Students needing more work on cooperative skills may participate in more individualized intensive training.

In this section you will learn the why, what, and how of cooperative skill instruction. The readings address why cooperative skills are important, what skills students need to be taught (forming skills, functioning skills, formulating skills, and fermenting skills), and how to teach them.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. Read Chapter 5 in *Circles of Learning* and view the assigned videotape on cooperative learning and social skill instruction. Discuss the videotape with your site participants and mentors.
2. Apply what you have learned by developing a cooperative learning lesson plan that focuses primarily on the development of a social skill. Use the Social Skills Planning Unit (page 3:27 in Cooperation in the Classroom) to write out your plan. Select a social skill that is simple, relevant, and appropriate to the development level of the students. It is ideal if the skill you select is also relevant to the student with a disability in the class. You may need to adapt the skill and the instruction somewhat for him or her.

   Individualize for that student by addressing a needed skill that has targeted on the IEP or suggested by the members of the student support team (e.g. initiating greetings or requesting). You may need to plan for a lesson that is conducted over several days. Feel free to use posters, demonstration of the skill, T-Charts, etc. Be creative!
3. Videotape your lesson, share the plan with your mentors. Be prepared to share your lesson and how it went with the other participants during the audionconference. Don't forget to reflect about the lesson with coworkers. Send a copy of your plan and your reaction to your instructor.

Section 7

Cooperative Discipline

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 7
COOPERATIVE DISCIPLINE

PURPOSE

The focus of this section is on promoting positive behaviors in a cooperative classroom. Participants will learn how cooperative learning theory is applied in classrooms to empower students through increasing motivation and productivity through cooperative activities.

PARTICIPANT OUTCOMES

1. Participants will identify the qualities of a cooperative classroom, comparing them to other models of classroom management.
2. Participants will identify behavior problems that arise in cooperative groups and strategies for addressing them.

READING AND VIEWING ASSIGNMENTS

1. Read the chapter by Meyer and Henry, "Encouraging cooperative behavior: Student needs and fairness in the regular classroom" in *Cooperative Learning and Strategies for Inclusion.*
2. Read the section on "Problem behaviors young children experience in cooperative groups," from the chapter by Putnam and Spenciner in *Cooperative Learning and Strategies for Inclusion.*
3. It is recommended, but not required, that you read *Control Theory in the Classroom* by William Glasser (1986, NY: Harper & Row). Glasser discusses how students who work in cooperative teams find that knowledge contributes to power, friendship and fun. He is a strong advocate of teaching students the necessary collaborative skills to function in groups.

CONTENT FOCUS

Cooperative learning theory has applications for classroom and behavior management. According to William Glasser (1986), author of *Control Theory in the Classroom*, students are motivated and empowered through cooperative learning groups as they gain control over their own behaviors and approach group problem solving and functioning in a democratic manner. Have you ever wondered how children can be prepared to function in a democratic society when our classrooms are structured in a authoritarian manner? As teachers become more comfortable with the principles of cooperative learning, they begin to recognize how they apply not only to academic learning situations, but also to individual and classroom behavior management concerns. In the context of cooperative learning activities, children learn group management functions, conflict resolution skills, how to deal with difficult behaviors, and leadership skills.

Educators manage cooperative classrooms by establishing with the students classroom rules and expectations. Students assume individual responsibilities such as "trying," "asking," "helping," and team responsibilities such as "solving our own problems," "using inner voices," and "consulting with other teams." Chapter 7 , "Problem behaviors young children experience in cooperative groups," from the *Cooperative Learning and Inclusion* book discusses approaches for difficult behaviors that are common in cooperative groups with young children, such as nonparticipation or passivity, domineering behavior, not sharing, or not staying with the group. Suggestions are made for addressing problem behaviors by first determining the function of a behavior (e.g., medical/biological problem, power struggle, lack of alternative skill, or need for adult attention). Once the function or goal of a behavior is determined, then an intervention strategy can be selected.

Students often have to adjust their behavior to a student with a disability in a cooperative group. They may have to learn to accommodate certain behaviors that are "mildly deviant" or socially inappropriate. They may be asked to participate in a behavior change program involving a reinforcement system, such as a token economy. At times, students may need to do some group problem solving to address troublesome behaviors of students with disabilities. Students can be taught problem solving skills or peer mediation strategies. It is amazing how creative students can be in generating unique solutions to behavior problems. Of course, children should not have to cope with problems that require therapeutic intervention or behaviors that are harmful or potentially dangerous to others. Such behaviors will be dealt with by adults and other professionals.

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. After reading the chapters, write a brief paper that compares and contrasts the traditional "authoritarian" disciplinary approach with a cooperative disciplinary approach. Highlight the major differences. Give examples from classrooms you have observed. Do you foresee any problems with a cooperative approach given the cultural background of the students in your school? How fair are both systems, and under what circumstances are they unfair? Share this paper with your mentors. Be prepared to discuss your ideas during the audioconference.

2. Using a student with a disability and difficult behaviors, develop a plan for incorporating this child into a heterogeneous cooperative group. If your student does not display a difficult behavior or problem behavior, select another child without a disability (if you can't find such a child, let me know and I will apply to teach in your district!).

   Incorporate the following into your plan: (1) A description of the child and the difficult behavior. (2) Your analysis of why the child is presenting the difficult behavior. What is the function of the behavior? (3) Discuss how this behavior affects the cooperative group? (4) In what ways can you assist the group in solving this behavior? (5) Describe the interventions you would use. Share this plan with your mentors.

Section 8

Adaptations for Students with Disabilities

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 8
ADAPTATIONS FOR STUDENTS WITH DISABILITIES

PURPOSE

Techniques for including students with disabilities in cooperative learning groups are discussed in this section. Some of the techniques covered include modifying instructional objectives, adapting the instructional delivery, altering expectations for students, and evaluation of achievement.

PARTICIPANT OBJECTIVES

1. Participants will give examples of four ways in which instructional objectives can be modified for students with disabilities in cooperative groups.
2. Participants will describe at least five ways in which the curriculum can be adapted for students with disabilities.
3. Participants will indicate ways in which technology can support students with disabilities in cooperative groups.
4. Participants will describe four techniques for adjusting the evaluation of students with disabilities.

READING ASSIGNMENTS

1. Read Chapter 4, "Including Students with Disabilities into Cooperative Groups," from Cooperative Learning and Strategies for Inclusion.
2. Read the handouts included with this section.

SECTION CONTENT FOCUS

It is in the context of a cooperative classroom that students whose abilities vary significantly from their peers have the best chance of succeeding in the long run. It is imperative that students with challenging needs be incorporated into some curricular activities with typical students in their class. Otherwise, they will fail to experience aspects of the core curriculum of the school (including the extracurricular activities such as Christmas Pageants and field trips). They will be unable to benefit from the invaluable socialization opportunities of observing typical behaviors, affiliating with others, and forming friendships. Participating in aspects of the core curriculum should not preclude students with disabilities from working on individualized instructional objectives or community based instruction.

Once cooperative learning is an ongoing classroom instructional procedure. teachers can address the challenges of assisting all students to strive toward excellence and to achieve to their highest capabilities. The art and science of teaching blend together as the teacher orchestrates the cooperative classroom community. Many decisions must be made in planning cooperative learning activities and one of the most important is when to use cooperative learning. Cooperative learning is only one of several ways to organize instruction. and another model. such as individualized instruction or direct instruction may be more appropriate for a given purpose. It is not at all unusual for cooperative learning to follow direct instruction as an application activity to assist students in internalizing, applying, and generalizing the material to other situations (as is the approach in this module).

In *Control Theory in the Classroom*, Glasser (1986) refers to two types of cooperative assignments: artificial cooperative assignments and genuine cooperative assignments. Even though an assignment is made to a cooperative group, it can be an artificial cooperative assignment because the work could be done just as well individually by any student willing to make the effort. "For example, any drill or fact memorization in which there is only one right answer can be handled effectively by teams, but is not by its nature a learning team activity" (Glasser, 1986, p. 125). Often students can prepare for a test together (practice pairs) but they like to receive individual grades for this type of work. Students especially resent receiving a team grade that would be lower than the one they individually achieved. Gifted students should not be subjected to having to work with material at the knowledge level that they have mastered. This type of activity is not the best for very high achievers, even to build leadership skills—there are better cooperative options!

The genuine cooperative assignment, according to Glasser, is one that "lends itself naturally to team cooperation and is difficult, even impossible, for a student to complete alone" (p. 125). Elizabeth Cohen, Director of the Program for Complex Instruction, Stanford University, (described earlier in Chapter 2 in the *Cooperative Learning and Strategies for Inclusion* book) uses "complex activities" for her cooperative learning groups. Each student can assume an aspect of the activity that is appropriate to his or her needs and abilities. A student with a severe disability can perform with high achievers. Lauren, who is classified as deaf-blind, participates on an Odyssey of the Mind team. In the Odyssey of the Mind competitions, one requirement of the skit "Alice in Omerland" is that in the performance, an inanimate object must become animate. Lauren took responsibility for this part of the skit by playing a "hat tree" that begins to move as her wheelchair rolls across the floor. This team won the local competition for their skit and performance.

It is especially exciting because it is more typical for students who are gifted and talented to participate in Odyssey of the Mind; very few students with severe disabilities have entered in the past.

In the readings assigned in this section, you will encounter various techniques to adapt cooperative activities for students with learning problems. Among them are changing response modes, developing functional equivalents, varying completion rates and workloads, and utilizing computer technology. We have only begun to scratch the surface of what is possible. I suspect you will also have many excellent and original suggestions for involving students with disabilities in cooperative groups!

The assigned chapter by Nevin, "Including Students with Disabilities into Cooperative Groups," presents a number of examples of cooperative learning activities that incorporate students with disabilities. The following lesson plan "Making Clay Float" provides an example of a cooperative activity and how a student with disabilities was included. Also, review the lesson on Endangered Species from Chapter 2, "The Process of Cooperative Learning" (Putnam, 1993). You may want to purchase the book *Fitting In: Cooperative Learning in the Mainstream Classroom* by Male and Anderson (1990) for additional lesson plans.

APPLICATION ACTIVITIES AND ASSIGNMENTS

After reading the assignments, apply the information on adapting a cooperative activity to a student with a disability. Select a student for participation in a cooperative activity in your school or district. Working with that student's teacher, teaching assistant, parents, classmates and others you believe would be helpful, plan a cooperative activity. Try to avoid artificial cooperative activities in your planning. Determine how you will modify your curricular objectives, what adaptations need to be made, what the gain will be for all students, and how you will assess the students. Carry out this cooperative activity with the children and videotape it. Reflect upon what happened and summarize your reactions at the end of your lesson plan. Be creative! You will describe your lesson with others via the audio conference.

REFERENCES

Cohen, E. (1991) Strategies for creating a multi-ability classroom. Cooperative Learning. 12(1), 4-8.

Glasser, W. (1985). Control Theory in the Classroom. New York: Harper & Row.

HANDOUT 8.1

MAKING CLAY FLOAT

A Cooperative Lesson Plan

Ms. Allen's fifth grade class is participating in a five week unit on displacement. The purpose of the unit is to foster an understanding of buoyancy and displacement through inquiry-oriented activities. Over the sessions, students have experimented with objects of different shapes, sizes, and densities to determine whether or not, and why, some objects float. In this lesson, students will discover how to make clay float.

Modifications are made for Rhonda, who has cerebral palsy and a communication disability. Rhonda uses sign language and a communication board to assist in communicating. In her group, Rhonda has been assigned the role of "Courier," the person who obtains the materials for the group. The group goals have been modified for Rhonda with respect to how she will respond (via sign language and a communication board) and lower level expectations (printing her name on the observation form). Personalized objectives have been established for Rhonda — they are to 1) work on communication skills (initiating communication); 2) to print her name on the group paper; 3) to participate; and 4) to carry objects from one location to another using her wheelchair independently.

Making Decisions

Group size: 3 members

Group assignment: The teacher assigns students to groups which are balanced for achievement and gender. Her goal is to place one high achiever, one average achiever, and one low achiever in each group. Groups contain girls and boys. An effort is made to pair students with differing cooperative skill levels. The groups remain in tact for the entire unit.

Room arrangement: Students pull their desks close together so they face one another.

Time allotted: 45 minutes a day.

Materials: pans, water, 1 ounce balls of clay, 1 pencil per group, paper

Roles: Recorder, Checker, Courier

The recorder writes down the group observations of the experiment; the checker makes certain that everyone in the group understands what they are to do and how to solve the problem; the courier obtains materials the teacher has placed on the shelf in the back of the room.

The Lesson

Task: To make a 1 ounce ball of clay float in a pan of water and to write up the group's observations about why the clay floated.

Positive Interdependence: A certificate is awarded if the students achieve their goal (reward interdependence). The group will receive one set of materials and one observation form (materials interdependence).

Individual Accountability: Each student demonstrates how to make the clay float.

Criteria for Success: the group can float 1 ounce of clay in their pan

Cooperative Skill: encouraging everyone to participate

The class will construct a T-Chart indicating what participation "looks like" and "sounds like."

PARTICIPATION	
Looks Like	**Sounds Like**
activity	"What do you think?"
handling the materials	"My suggestion is..."
writing	"Will you help me?..."
looking at the materials	"Here's my idea..."
looking at each other	"Can I help you?"

Adaptations for individual differences: Rhonda will use sign language and her communication board to communicate with group members. Students in the class have been receiving instruction in beginning sign language. When Rhonda performs her role as courier, she places the materials on a board attached to her wheelchair arms. The children are sensitized to the fact that it may take Rhonda more time to bring the materials to the group. Rhonda uses a pencil adapted with a grip to write her name on the observation sheet. Rhonda's objectives are personalized, as indicated in the introduction to the lesson plan.

Monitoring: Students monitor themselves through journaling at the end of the lesson and discussing their level of participation in the activity.

Evaluation: The teacher observes each group's attempt at making clay float and reviews the observation forms.

A journal process is being used for the unit, in which students record what went well and what didn't go well in their groups. They write down two things they learned from the lesson and how well they exhibited the cooperative skill ("participation" in this lesson), giving specific examples. The teacher reviews the journals and provides groups with feedback.

by JoAnne Putnam

* This unit is based on the Elementary Science Study "Sink or Float Unit" (New York: McGraw-Hill Book Company, 1971).

Readings

Section 9

Cooperative Learning and Cultural Diversity

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 9
COOPERATIVE LEARNING AND CULTURAL DIVERSITY

PURPOSE

The advantages of cooperative learning for addressing cultural diversity in the classroom are discussed in this section. Techniques are presented for adapting the curriculum to Northern Native Americans through the use of cooperative learning.

PARTICIPANT OUTCOMES

1. Participants will described goal and strategies of multicultural cooperative learning.
2. Participants will develop a cooperative learning lesson plan geared to the Alaska Native population.

READING ASSIGNMENTS:

1. Read the chapter "Cooperative Learning and Cultural Diversity: Building Caring Communities in the Cooperative Classroom," in *Cooperative Learning and Strategies for Inclusion: Celebrating Diversity in the Classroom* .
2. Read "Cooperative Learning among the Canadian Inuit" from *Cooperative Learning*, (1991) 12 (1), 28-30.
3. Read the article by Swisher "Cooperative Learning and the education of American Indian/Alaskan Native Students: A review of the literature and suggestions for implementation," in *Journal of American Indian Education* (1990), 29 (2), 36-43.

CONTENT FOCUS

There is a large body of research evidence and a strong rationale for using cooperative learning procedures in multicultural classrooms (see *Cooperation and Competition: Theory and Research* by Johnson and Johnson, 1989). Students have various abilities and talents, yet our traditional focus in the classroom has been on teaching and assessing verbal/ linguistic intelligence and logical/mathematical intelligence. Gardner (1983), in *Frames of Mind: The Theory of Multiple Intelligences* has identified seven human intelligences that include spatial, musical, kinesthetic, interpersonal, intrapersonal in addition to verbal -linguistic and logical-mathematical. "The standard techniques of textbooks, worksheets, large group instruction, and ability grouping are simply not capable of handling the range of academic and the linguistic differences found in our classrooms today" (Cohen, 1991, p.4, described in Chapter 2, "The Process of Cooperative Learning," from the *Cooperative Learning and Strategies for Inclusion*).

For students whose cultural backgrounds, special talents or intellectual strengths, and learning styles do not lend themselves to traditional instruction, cooperative leaning is a highly recommended alternative. In the readings you will discover how status problems, low academic self-concept, substance abuse and addictive behaviors, and value conflicts with the individualistic orientation of public schools are addressed with cooperative learning techniques. The "collectivity orientation" characteristic of Native populations appears to be much more compatible with cooperative learning than our traditional methods.

APPLICATION ACTIVITY AND ASSIGNMENT

After you have completed the readings, create a cooperative lesson that has special cultural relevance to your community. Videotape the students in their cooperative activities, especially focusing on the student with a disability. Be prepared to share about this lesson during the audioconference. Send a copy of your plan and your reactions to your instructor.

REFERENCES

Cohen, E. (1991) Strategies for creating a multi-ability classroom. Cooperative Learning. 12(1), 4-8.

Gardner, H. (1983). Frames of Mind: The Theory of Multiple Intelligences. New York: Basic Books.

Johnson, D.W. & Johnson, R.T. (1989) Cooperation and Competition: Theory and Research. Edina, MN: Interaction Books.

Readings

Swisher, K. (1990). Cooperative Learning and the Education of American Indian/Alaskan Native Students: A Review of the Literature and Suggestions for Implementation. Journal of American Indian Education, 29, p. 36-43. Center for Indian Education, College of Education, Arizona State University, Tempe, AZ 85287-1311.

3.107

Cooperative Learning and the Education of American Indian/Alaskan Native Students: A Review of the Literature and Suggestions for Implementation

Karen Swisher

Schools as institutions of learning in this country are set up to accommodate styles of teaching and learning which are incongruent with the traditional values and styles of learning that characterize many American Indian/Alaskan Native[1] students. Indian children are often schooled in an atmosphere of individualism and competition although the literature indicates that many Indian children are raised in an atmosphere that stresses cooperation and de-emphasizes competition.

The rhetoric which addresses the issue of competition in the classroom as it relates to the schooling of American Indian children is increasing. An hypothesis exists which seems to suggest that Indian children possess a predisposition to a cooperative rather than a competitive style of learning, especially when competitive means competing with other students for one teacher's attention either to be recognized publicly for an answer, or a "reward" less public in the form of a grade on a paper or report card. The Indian child in this situation often withdraws, not willing to be singled out or "spotlighted" (Mohatt & Erickson, 1981). The child's predisposition is to learn cooperatively in groups rather than competitively as an individual (Wax, 1971; Brewer, 1977; Lockart, 1978). For example, in the statement, "Individual competition is not always an effective motivating force for Indian children," Brewer (1977, p. 22), an Oglala Sioux suggests that the "traditional" use of competition in the classroom, i.e., being alone and competing as an individual, is the issue rather than the idea of competition itself. She suggests that:

V.29 #2

> There is a constant fear of 'standing out' in a group that has deep roots in our culture and is sanctioned even by the present generation through teasing. Yet, there is also considerable competition in games outside the classroom, in sports, for example, where teams are involved (Brewer, 1977, p. 22).

Lockart (1978), in discussing the cultural conflicts the Indian child often experiences in the non-Indian classroom, also speaks to the concern for competition:

> Although the American Indian's interest in team sports is cited as an example of his competitiveness, it should be noted that team or group competition is acceptable, but in single competition recognition of the "winner" implies a negative attitude toward the "loser," and is not acceptable (p. 4).

Wax (1971), in looking at competition as it relates to the peer society of American Indian youth, writes:

> It has frequently been observed that Indian children hesitate to engage in an individual performance before the public gaze, especially where they sense competitive assessment against their peers and equally do not wish to demonstrate by their individual superiority the inferiority of their peers. On the other hand, where performance is socially defined as benefiting the peer society, Indians become excellent competitors (as witness their success in team athletics) (cf. Dumont & Wax, 1969, p. 15).

A good example of an Indian child's group competitiveness can be found on nearly every Indian reservation or place where Indian youth (and adults) come together to play team sports. The competition, when it is a group effort toward a goal, is very fierce and an individual stands out only as a member contributing to a goal.

Demonstration of Learning

In their investigation of aspects of teacher and student behavior that seem to be culturally patterned and have special relevance for Indian education, Mohatt and Erickson (1981) speak of the "teacher searchlight" phenomenon. This term is descriptive of a teacher's use of public scrutiny for "singling out," or calling attention to the individual child's behavior in front of an audience or other children. In a study of Cherokee culture and school achievement Brown (1980) also notes that:

> Cherokee children are frequently reluctant to be singled out for public praise by a teacher. Such praise in front of the other children, with its emphasis on individual rather than group effort, is likely to produce embarrassment because it disrupts group harmony (p. 58).

Brewer (1977) describes it as "standing out." Whatever the rubric under which we choose to place the meaning, the difference in the ways Indian children prefer to learn and demonstrate what they have learned seems to be culturally patterned.

BEST COPY AVAILABLE

3.108

Participation in Learning Events

While learning style is generally used to describe the way in which students prefer to learn or acquire knowledge, interactional style has been used to describe the way in which students demonstrate learning or knowledge. In both learning style and interactional style preference, it is apparent from the literature that Indian students from different tribal groups are predisposed to cooperative versus competitive styles of acquiring and demonstrating knowledge.

In an ethnographic study of the Warm Springs Reservation in Oregon, Philips (1983) observed the participation/interaction of Anglo and Indian students in public school classrooms. Based on this, she identified four different participant structures used by teachers to draw out or elicit student interaction and demonstrations of their learning: (1) whole class interaction with the teacher; (2) small group interaction with the teacher; (3) one-to-one involvement between teacher and single student, usually during desk work in which interaction is initiated by a student's raised hand or approach to the teacher's desk; and (4) student-led groups supervised by the teacher. Philips (1983) reports that Warm Springs Indian children, in contrast with Anglo children, were reluctant to participate in the first two structures; however, they were more talkative than Anglo children in the context of student-initiated verbal interaction and student-led group projects.

Situations in which the learning and/or interactional style of the home environment conflicts or interferes with the learning/interactional style required for "successful" participation in the classroom are termed "discontinuity" or "cultural incongruity." A series of investigators have proposed that these incongruities adversely affect achievement (Philips, 1983; Cazden, 1982; Erickson & Mohatt, 1982; Heath, 1982; Van Ness, 1981; Dumont, 1972).

John (1972) suggested that Navajo children's "styles of learning" through which they had been enculturated at home were very different from those in which they were expected to learn in school. In describing learning by Oglala Sioux children at home and school, Brewer (1971) says these children used processes of observation and self-testing in private, followed by demonstration of a task for approval as essential steps in their acquisition of knowledge and skills. "Learning through public mistakes was not and is not a method of learning which Indians value" (Brewer, 1971, p. 22).

Other ethnographic literature corroborates the view that observation is essential to learning for Navajo children. Several investigators (Longstreet, 1978; John, 1972; Leighton & Kluckhohn, 1948) have reported that Navajo children repeatedly observe an activity, and review the performance in their heads until they are certain that they can do the task well the very first time they undertake its performance. Longstreet (1978) reports an example given by Sirarpi Ohannessian in the *Study of the Problems of Teaching English to American Indians*:

> A reluctance to try too soon and the accompanying fear of being "shamed" if one does not succeed may account for the seemingly passive, unmotivated, and unresponsive attitude of Indian students . . . A Navajo girl, for instance, is said to watch her mother weaving rugs for a very long time before she asks for a loom. She then produces a small rug of marketable quality at the local trading post (p. 28).

Cooperation, Competition, and Achievement

While educational researchers have directed some attention to cultural variables, Brown (1979) claimed that few research studies have actually investigated the relationship between traditional cultural values and the school achievement of Indian children. Traditional values such as avoidance of competition, emphasis on cooperation, and strong peer influence are not found in all tribal groups; however, they are fairly common to many different Indian tribes. According to Brown (1979) there are only two studies conducted by Hess in 1974 and Brown in 1977 which have gone beyond anecdotal discussion and investigated traditional values in relation to achievement of Indian children. Hess reports:

> There appears to be more reason to believe that "competitiveness" is an alien orientation for Indian students. This seems to be particularly true when the implied competition is with peers, rather than with a standard of excellence (Brown, 1979, p. 5).

Brown (1979) also reported that Hess found high levels of classroom competition negatively related to the achievement of Indian students. Her 1974 sample of 481 American Indian students were enrolled in grades three through eight on a northern Plains reservation.

Brown's (1980) study of cooperative and competitive behavior among Cherokee children indicates that Cherokee grade school children were more cooperative and less competitive than an Anglo comparison group. He found that cooperative behavior was negatively related to measures of their school achievement. Brown (1980) explained that:

> According to Cherokee peer group norms, it is not appropriate for the individual to rise above or outperform his peer group. In the classroom setting peer group influence would thus tend to discourage rivalry and competition with its emphasis on "winning" or coming out on top at the expense of other children (p. 85).

He concluded that cooperative and competitive behaviors can be "adaptive" or "maladaptive" depending upon the social context in which the behavior takes place. In an environment requiring group solidarity and cohesiveness, cooperative behavior is an adaptive trait; however, in an environment of individualism and competition, cooperative behavior is maladaptive.

Data which lend support to the cooperative vs. competitive learning/interactional style of Indian children thesis have dealt with "cooperative" in a broad sense. In other words, grouping and the use of team games are suggested as techniques for promoting cooperation in the classroom. For example, Brewer (1977) encouraged teachers to capitalize on competition as a motivating force by substituting games and group teams in the classroom. Wax (1971) suggested that simple contests in spelling or arithmetic could introduce the principle he describes as competition which is socially defined as benefiting the peer society. Lockhart (1978) suggests that if teachers are aware of the "winner/loser" conflict

BEST COPY AVAILABLE

> they can creatively structure their class participation exercises on a team basis rather than on spotlighting individual achievers, and thereby attempt to reach all pupils, not just the non-Indians. Indian children respond very well, for example, to spelling bees, team arithmetic games, and so on (p. 4).

As a result of his study with Cherokee children, Brown (1981) suggested that classrooms ought to be places where emphasis is placed on cooperation. He concluded that

> In a cooperative environment, the children would be encouraged to work together to accomplish assignments. The emphasis would be on group accomplishments and group evaluation. In this new classroom environment, the children would be able to tutor their peers freely, since the stress on individual accomplishment would be removed (1981, p. 71).

What Brown and others are suggesting is a restructuring of individualistic, competitive classrooms to reflect a congruency between those home-learned cultural or traditional cooperative values and the way in which learning occurs and is demonstrated at school. A growing body of literature reports that classrooms organized to promote cooperation are equally effective as those organized along a more competitive structure (Brown, 1981; Slavin, 1989).

While Brown and others suggest that cooperative learning appears to be an approach that is compatible with the learning/interactional style of some Indian children, "cooperative" is defined broadly, i.e., as grouping and team games. Specific strategies for cooperative learning have been developed and researched with selected populations of students in public schools (Slavin, 1989). The elements which define the strategies as *cooperative* have been identified to include individual accountability, group rewards, equal opportunities for success, face-to-face interaction, and interpersonal and small group skills (Slavin, 1989; Johnson, Johnson, Holubec, & Roy, 1984).

Although Indian students have not been identified as a sizable population in the research studies, the strategies included in the corpus of studies from the Center for Social Organization of Schools at Johns Hopkins University should be considered for applicability in classrooms attended by Indian students. Achievement gains, liking of self and others, and liking of school, are just some of the outcomes documented in research studies of desegregated classrooms involving Student Team Learning (De Vries, Edwards, & Slavin, 1979; Cooper, Johnson, Johnson, & Wilderson, 1980; Gonzales, 1979; Slavin, 1977, 1979; Slavin & Oickle, 1980; Ziegler, 1980). The effects of Student Team Learning strategies have been more dramatic for minority students than for white students (Slavin, 1986).

Cooperative Learning: One Approach

In recent years cooperative learning, contrasted with competitive or individualized learning, has been of considerable interest to researchers such as Elliot Aronson, David and Roger Johnson, Spencer Kagan, Yael and Shlomo Sharan, and Robert Slavin. As a result, an extensive compendium of strategies or techniques which have a strong research base are available to classroom teachers.

Several Student Team Learning techniques have been developed, or adapted, and researched at The Johns Hopkins University Center for the Social Organization of Schools. Student Team Learning has as its basis the idea that when students are placed on learning teams, much the same as athletic teams, each student knows that a group of peers support his or her academic efforts. In order for the team to be successful, all team members must do their best. Three techniques, Student Teams-Achievement Division (STAD), Teams Games Tournaments (TGT), and Jigsaw, have been extensively researched and found to significantly increase student learning. The research has demonstrated that teams of heterogeneous achievement, gender, and ethnic composition can be successfully transferred from the playing field to the classroom (Slavin, 1986).

In all of the Student Team Learning techniques, students are assigned to four- or five-member heterogeneous learning teams that stay together for five to six weeks or for the duration of a unit of study. The team is a microcosm of the class. Each week the teacher introduces new material in a lecture or some other method of presentation. The team members then study the presented materials in their teams, making sure all team members understand the materials. A quiz on the material follows the team practice session in STAD and Jigsaw. If TGT is used, the students show their individual mastery in weekly academic tournament games.

Individual improvement scores form the basis for STAD and Jigsaw scoring and determine points contributed to the team score. Each student is assigned an individual base score. The student then tries to improve the score on each quiz; the discrepancy or gain between the base score and each subsequent quiz score constitutes the number of points the individual contributes to a team score. Students try to exceed their own past records; competition is with self. In TGT, students compete in tournaments with members of other teams who are comparable in past performance. Equality of competition and the provision for all students to contribute maximum points to their team's score are important components of TGT. Both STAD and TGT provide for public recognition of the highest scoring teams through bulletin board postings or class newsletters, for example.

Critics of competition in the classroom have questioned the tournament component of TGT. But there is a difference in the type of competition in a traditionally structured classroom and one structured for team learning. The philosophy regarding competition upon which the TGT technique is based is reflected by a team of Johns Hopkins University researchers in their statement:

> The destructive character of competition for grades in the traditional classroom is not so much that it is competition per se, but that it is unfair competition; some students are preordained to succeed, and others to fail (Slavin *et al.*, 1981:13).

In other words, the competition in TGT differs in that it is carefully set up to be fair.

3.109

BEST COPY AVAILABLE

Student Team Learning strategies have compiled an enviable record of research which documents positive contributions to academic achievement. In 40 studies of Student Team Learning methods, 33 studies found students in Student Team Learning classes gained more in achievement than did students in traditional classes studying the same objectives (Slavin, 1988).

Conclusions

The literature about the cooperative nature of Indian children presents enough evidence to conclude that practitioners ought to consider classroom organizational structures which promote cooperative learning activities. It should be noted, however, that the relationship between cooperation/competition and achievement for Indian children needs further investigation. While several studies have been conducted with racially mixed groups of students (Black, white and Hispanic), the effects of specific techniques or strategies (such as Student Team Learning), on achievement and interaction outcomes of Indian children have apparently not been researched and reported to any great extent. There is, therefore, a need to examine practice, and document in an empirical manner the successful strategies which are culturally congruent and achievement oriented.

Endnote

[1] Hereafter referred to as Indian except as otherwise used in direct quotes.

Karen Swisher is an Assistant Professor of Education in Curriculum and Instruction and the Director of the Center for Indian Education at Arizona State University

REFERENCES

Aronson, E., Blaney, N., Stephan, C., Sikes, J., & Snapp, M. (1978). *The Jigsaw Classroom.* Beverly Hills, CA: Sage Publications.

Brewer, A. (1971). On Indian education. *Integrateducation, 15*, 21-23.

Brown, A. (1979). The cross-over effect: A legitimate issue in Indian education? In *Multicultural education and the American Indian* (pp. 93-113). Los Angeles, CA: American Indian Studies Center, University of California.

Brown, A. (1980). Cherokee culture and school achievement. *American Indian Culture and Research Journal, 4*, 55-74.

Cazden, C. (1982). Four comments. In P. Gilmore and A. Glatthorn (Eds.) *Children in and out of school.* Washington, DC: Center for Applied Linguistics.

Cooper, L., Johnson, D.W., Johnson, R., & Wilderson, F. (1980). Effects of cooperative, competitive, and individualistic experiences on interpersonal attraction among heterogeneous peers. *Journal of Social Psychology, 111*, 243-252.

DeVries, D.L., Edwards, K.J., & Slavin, R.E. (1978). Biracial learning teams and race relations in the classroom: Four field experiments on Teams-Games-Tournaments. *Journal of Educational Psychology, 70*, 356-362.

DeVries, D.L. & Slavin, R.E. (1978). Teams-Games-Tournaments (TGT): Review of ten classroom experiments. *Journal of Research and Development in Education, 12*, 28-38.

Dumont, R.V., Jr. (1972). Learning English and how to be silent: Studies in Sioux and Cherokee classrooms. In C.B. Cazden, V.P. John, and D. Hymes (Eds.) *Functions of Language in the Classroom* (pp. 344-369). New York, NY: Teachers College Press.

Dumont, R.V. & Wax, M.L. (1969). Cherokee school society and the intercultural classroom. *Human Organization, 28*, 217-226.

Erickson, F. & Mohatt, G. (1982). Cultural organization of participation structures in two classrooms of Indian students. In G. Spindler (Ed.) *Doing the Ethnography of Schooling.* New York, NY: Holt, Rinehart, and Winston.

Gonzales, A. (1979). Classroom cooperation and ethnic balance. Paper presented at the Annual Convention of the American Psychological Association, New York.

Heath, S.B. (1982). Questioning at home and at school: A comparative study. In G. Spindler (Ed.) *Doing the ethnography of schooling.* New York, NY: Holt, Rinehart and Winston.

John, V.P. (1972). Styles of learning-styles of teaching: Reflections on the education of Navajo children. In C. Cazden *et al.* (Eds.) *Functions of language in the classroom* (pp. 331-343). New York, NY: Teachers College Press.

Johnson, D.W., Johnson, R.T., Holubec, E.J., & Roy, P. (1984). *Circles of learning.* Alexandria, VA: Association for Supervision and Curriculum Development.

Johnson, D.W. & Johnson, R.T. (1979). Conflict in the classroom: Controversy and learning. *Review of Educational Research, 49*, 51-70.

Leighton, D. & Kluckhohn, C. (1948). *Children of the people.* Cambridge, MA: Harvard University Press.

Lockhart, B. (1978). *Cultural conflict: The Indian child in the non-Indian classroom.* Washington, DC: Education Resources Information Center.

Longstreet, E. (1978). *Aspects of ethnicity.* New York, NY: Teachers College Press.

Mohatt, G. & Erickson, F. (1981). Cultural differences in teaching styles in an Odawa school: A sociolinguistic approach. In H.T. Trueba, G.P. Guthrie, and K.H. Au (Eds.) *Culture and the bilingual classroom* (pp. 105-138). Rowley, MA: Newbury House Publishers.

Philips, S. (1983). *The invisible culture.* New York, NY: Longman.

Slavin, R.E. (1989). Research on cooperative learning: Consensus and controversy. *Educational Leadership, 47*, 52-54.

Slavin, R.E. (1988). *Student team learning: An overview and practical guide* (2nd ed.). Washington, DC: National Education Association.

Slavin, R.E. (1986). *Using student team learning* (3rd ed.). Baltimore, MD: The Johns Hopkins University.

Slavin, R.E. (1979). Effects of biracial learning teams on cross-racial friendships. *Journal of Educational Psychology, 71*, 381-387.

Slavin, R.E. (1977). How student learning teams can integrate the desegregated classroom. *Integrateducation, 15*, 56-58.

Slavin, R.E., Hollifield, J., Cater, R., Leavy, M., Thomas, H., & Lewis, J. (1981). *Student team learning workshop leader's manual.* Baltimore, MD: The Johns Hopkins University.

Slavin, R.E. & Oickle, E. (1981). Effects of learning teams on student achievement and race relations: Treatment by race interactions. *Sociology of Education, 54*, 174-180.

Van Ness, H. (1981). Social control and social organization in an Alaskan Athabaskan classroom: A microethnography of "Getting Ready" for reading. In H.T. Trueba *et al.* (Eds.) *Culture and the bilingual classroom* (pp. 120-138). Rowley, MA: Newbury House Publishers.

Wax, M.L. (1971). *Indian Americans: Unity and diversity.* Englewood Cliffs, NJ: Prentice-Hall.

Ziegler, S. (1980). *The effectiveness of cooperative learning teams for increasing cross-ethnic friendship: Additional evidence.* Unpublished doctoral dissertation, University of Toronto.

BEST COPY AVAILABLE

Section 10

Cooperative Student Support Teams

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

SECTION 10
COOPERATIVE STUDENT SUPPORT TEAMS

PURPOSE

To demonstrate how teams of educators, parents, community members and others can work together cooperatively to plan and support the education of an individual student or group of students.

PARTICIPANT OUTCOMES

1 To describe why student support teams (also referred to as cooperative education teams) are important in addressing the needs of students experiencing learning and behavior problems.

2 To describe how student support teams operate.

READING AND VIEWING ASSIGNMENTS

1 Read the chapter "One divided by two or more: Redefining the role of the special educator and other support personnel as co-equal members of a cooperative education team" by Villa and Thousand and "Innovative classroom programs for full inclusion" by Jakupcak in *Cooperative Learning and Strategies for Inclusion.*

2 Read the paper "From the courtroom to cooperation: Educating a student with autism in the regular classroom" by Putnam.

3 Read Chapter 7, "Collegial Support Groups" in *Cooperation in the Classroom.*

CONTENT FOCUS

Although this is the last section of the module on cooperative learning, it should not to imply that it is the least important one. Indeed, forming cooperative student support teams may be the most important thing we can do to promote student success.

Rarely does one person have all the solutions to a child's educational or social problems. Often the collective wisdom of a group of persons is what leads to a successful solution. Student support teams analyze a problem, share different perspectives, brainstorm alternative solutions, weigh possible solutions and agree upon the most feasible approach.

A cooperative student support team is not an IEP (Individualized Educational Program) Team. It is structured to assure equal parity among all the team members. The CSST (cooperative student support team) includes the child's teacher and special education teacher, the parents, an advocate of the parent's choice, the teaching assistant, the child if appropriate, a student, an administrator, and others such as an educational consultant, a specialist, a social worker, or a community member. The working team consists of 4 to 5 members, but others can be included on an as-needed basis.

The goal of a student support team is to advocate for the education and well-being of a child. Cooperative learning principles such as positive interdependence and individual accountability guide the team's operation. A well-functioning team incorporates aspects of cooperative group management by establishing norms for the group and working on cooperative skills. Leadership is shared—everyone learns to lead and to be a good follower.

When a student support team functions well, deep insight into the reasons behind a child's problems and creative solutions to addressing the problems are the norm. Moreover, no one person is entirely responsible for the success or failure of a program. As Villa and Thousand (1993) stated, "When the work of the traditional teacher is divided between two or more persons, both teachers and students should more fully experience the power of being able to meet increasingly diverse educational and psychological student needs, to free themselves from isolation and the sole responsibility for student learning, and to experience the fun and feeling of belonging that result when people re-invent education together."

APPLICATION ACTIVITIES AND ASSIGNMENTS

1. To apply the information on student support teams, describe how you would go about forming a student support team for a student with a disability in your district. Write a letter that you could (hypothetically or realistically) send to key people who might be members of the team. Discuss the purpose of the team, strategies for membership selection, suggestions for incorporating cooperative learning principles, tips for facilitating successful meetings, developing collegial skills and advocating for the child around which the team is formed. Discuss this with your mentors.
2. Celebrate your efforts and accomplishments in learning and applying these ideas about cooperative learning and strategies for inclusion! Be prepared to share your cooperative learning sucesses in the audioconference.

References

References for Cooperative Learning Module

Module Developer:
JoAnne Putnam, Ph.D.
University of Maine Presque Isle

Module Series Editor:
Susan Ryan-Vincek, Ph.D.
University of Alaska Anchorage

January, 1995

READINGS AND MATERIALS

REQUIRED READING:

Putnam, J.W. (Ed.). (1993). Cooperative learning and strategies for inclusion: Celebrating Diversity in the classroom. Baltimore, MD: Paul H. Brookes Publishing Co.

Johnson, D.W., Johnson, R.T., & Holubec, E.J. (1990). Cooperation in the Classroom. Edina, MN: Interaction Book Company.

RECOMMENDED READING:

Male, M. & Anderson, M. (1990). Fitting in: Cooperative learning in the mainstream classroom. San Francisco, CA: Majo Press. (Order from: Educational Apple-Cations, 125 Silvar St., Santa Cruz, CA, 95060.)

ARTICLES AND CHAPTERS:

Giangreco, M. & Putnam, J. (1991). Supporting the education of students with severe disabilities in regular education environments. In L.H. Meyer, C.A. Peck, & L. Brown (Eds.) Critical issues in the lives of people with severe disabilities. Baltimore, MD: Paul H. Brookes Publishing Co.

Howden, J. (1991) Co-operative learning among the Canadian Inuit, Cooperative Learning, 12(1), 28-31.

Putnam, J. (April, 1993) "From the courtroom to cooperation: Educating a student with autism in the regular classroom." Paper presented to the American Educational Research Association, Atlanta, Georgia.

Putnam, J.W. (1992). Teaching students with severe disabilities in the regular classroom. In L. Cohen (Ed.), Children with Exceptional Needs in Regular Classrooms. Washington, D.C.: National Education Association.

Swisher, K. (1990). "Cooperative Learning and the education of American Indian/ Alaskan Native Students: A review of the literature and suggestions for implementation," in Journal of American Indian Education, 29 (2), 36-43.

REFERENCES

Cohen. E. (1991) Strategies for creating a multi-ability classroom. Cooperative Learning. 12(1), 4-8.

Dale E. (1954). Audio Visual Methods in Teaching (p. 42). New York: Dryden Press

Elementary Science Study, "Sink or Float Unit." (New York: McGraw-Hill Book Company, 1971)

Gardner, H. (1983). Frames of Mind: The Theory of Multiple Intelligences. New York: Basic Books

Giangreco, M. & Putnam. J. (1991). Supporting the education of students with severe disabilities in regular education environments. In L.H. Meyer, C.A. Peck, & L. Brown (Eds.) Critical issues in the lives of people with severe disabilities. Baltimore, MD: Paul H. Brookes Publishing Co.

Glasser, W. (1986) Control theory in the classroom. New York: Harper & Row.

Howden, J. (1991) Co-operative learning among the Canadian Inuit, Cooperative Learning, 12(1), 28-31.

Johnson, D. W. & Johnson, R. T. (1989) Cooperation and competition: Theory and research. Edina, MN: Interaction Books.

Johnson, Johnson, Holubec (1986) Circle of learning: Cooperation in classroom. Alexandria, VA: Association for Supervision and Curriculum Development

Male, M. & Anderson, M. (1990). Fitting in: Cooperative learning in the mainstream classroom. San Francisco, CA: Majo Press. (Order from: Educational Apple-Cations, 125 Silvar St., Santa Cruz, CA, 95060.)

Putnam. J. (April, 1993) "From the courtroom to cooperation: Educating a student with autism in the regular classroom." Paper presented to the American Educational Research Association, Atlanta, Georgia.

REFERENCES

Putnam, J.W. (1992). Teaching students with severe disabilities in the regular classroom. In L. Cohen (Ed.), Children with Exceptional Needs in Regular Classrooms. Washington, D.C.: National Education Association.

Putnam, J.W. (Ed.). (1993). Cooperative learning and strategies for inclusion: Celebrating diversity in the classroom. Baltimore, MD: Paul H. Brookes Publishing Co.

Slavin, R. E. (1990). Cooperative learning: Theory, research, and practice. Englewood Cliffs, NJ: Prentice Hall.

Swisher, K. (1990). "Cooperative Learning and the education of American Indian/Alaskan Native Students: A review of the literature and suggestions for implementation," Journal of American Indian Education, 29 (2), 36-43.

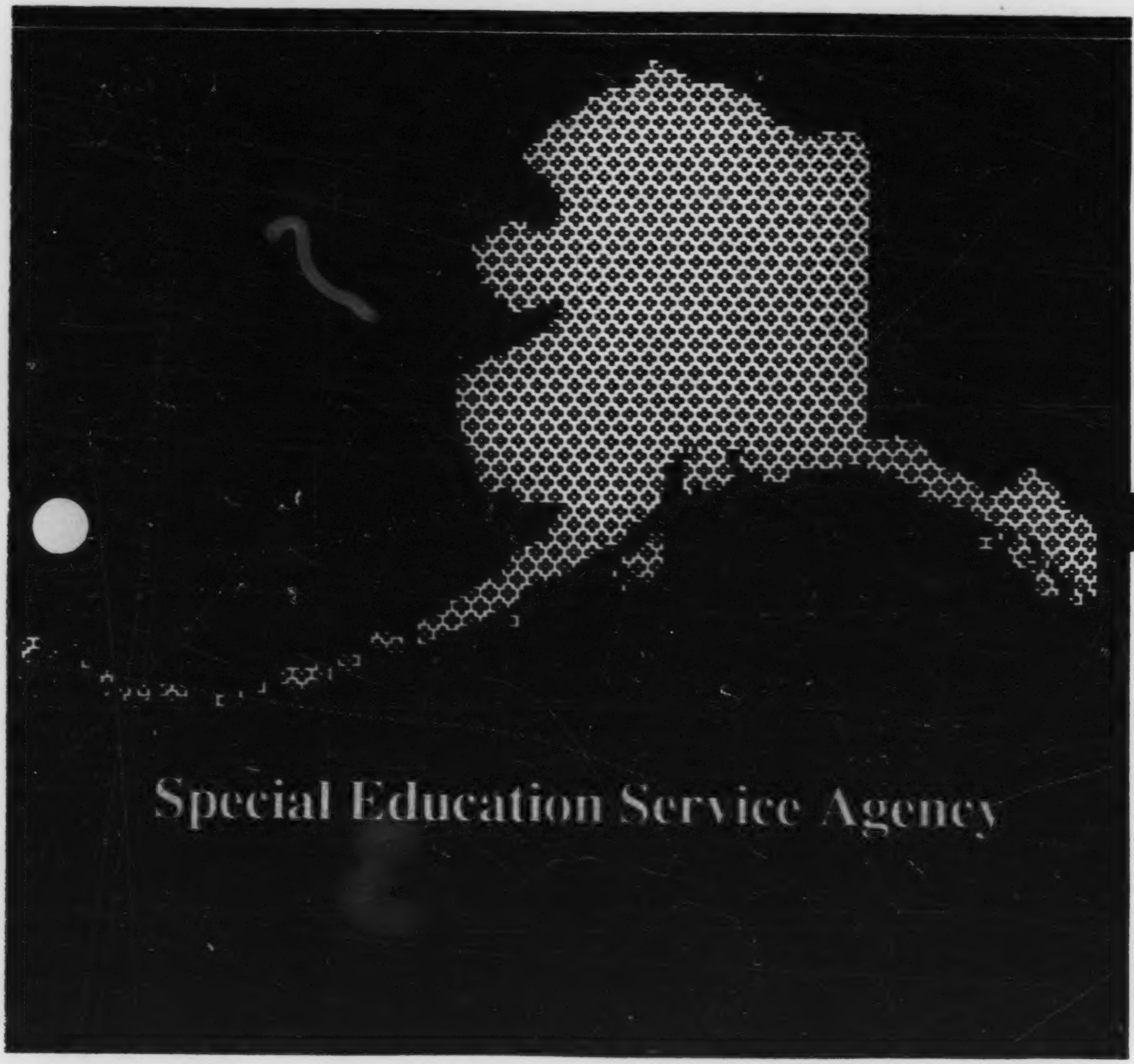
REQUIRED VIDEOTAPES:

1. Cooperation in the Workplace (ASCD Series)
2. Social Skills and Cooperative Learning (ASCD Series)
3. Positive Interdependence (Johnson & Johnson)
4. Peer Mediation and Cooperative Learning (Johnson & Johnson)
5. We Can Talk: Cooperative Learning for Linguistic Minority Students (Resources for Teachers)

Videotapes can be purchased from:
Association for Supervision and Curriculum Development.

or contact:
Drs. Johnson
University of Minnesota
202 Pattee Hall
Mineapolisis, MN 55455

Library Resources on Inclusive Education


Special Education Service Agency

BEST COPY AVAILABLE

Special Education Service Agency

Library Resources on Inclusive Education

Compiled by:

Fran Maiuri
Kristin Ryan
Pilot for Alaska Students (PALS)
with Deaf-Blindness
Special Education Service Agency
2217 E. Tudor Road - Suite 1
Anchorage, Alaska 99507
(907) 562-7372 • (907) 562-0545 FAX • (907) 563-8284 TTY

May 1995

This product was supported by U.S. Department of Education Grant #025A20009P, Alaska State Department of Education Grant #FS9511603 and the Special Education Service Agency

Introduction

Library Resources on Inclusive Education was compiled to assist educators, parents and others to access books, videos and other publications available through the Special Education Service Agency (SESA) library. Publications listed support inclusive education for students with deaf-blindness or other low incidence disabilities. As educators in the 1990's it is the responsibility of each of us to improve our ability to educate children with special needs in regular education settings. Resources from the SESA library can be one support to help educators and families meet the inclusion challenge.

The resource guide is divided into six sections:
General Inclusion
Inclusion of Students Who are Deaf-Blind
Inclusion of Students Who are Blind/Visually Impaired
Inclusion of Students Who are Deaf/Hard of Hearing
Collaborative Teaching and Cooperative Learning
Social Skills and Behavioral Supports
A title index beginning on page 40 is included to assist with locating specific publications.

Publications included provide information on successful strategies for inclusive education, adaptations for sensory impairments, examples of teachers sharing their experiences, examples of students in inclusive education, strategies and examples of cooperative learning and adult collaboration, revised assessment techniques, strategies to facilitate social skill development and provide positive supports to reduce inappropriate behaviors and other related topics.

To borrow a selection, contact the SESA librarian by phone, fax, letter or in person. It is best if you make your request using the title and call number for the publication. If the selection does not list a call number, title alone or title and author is sufficient.

New materials are frequently added to the SESA library and the librarian can provide you with up-to-date information about publications available. If the SESA library does not have the title that you are looking for, the librarian may be able to suggest other locations where it might be found. For additional information, consult Using the SESA Library on page one and SESA Library Policy, Appendix A.

TABLE OF CONTENTS

Using the SESA Library 1

General Inclusion

Books 2

Videos 14

Inclusion of Students Who are Deaf/Blind

Books 17

Videos 18

Inclusion of Students Who are Blind/Visually Impaired

Books 19

Videos 20

Inclusion of Students Who are Deaf/Hard of Hearing

Books 22

Audio/Visual 24

Collaborative Teaching and Cooperative Learning

Books 25

Audio/Visual 28

Social Skills and Behavioral Supports

Books 30

Games 34

Audio/Visual 36

Title Index 38

Appendix A - SESA Library Policy

Using The SESA Library

The SESA Library was established for the use of SESA staff and clients. Materials are loaned out so that clients can review them and decide if they are appropriate to order for themselves. The SESA Library also lends out materials purchased under an Assistive Technology grant, which are available to anyone in the state. In addition, the Library manages the loans of some long term loan items purchased under another grant.

The Library has books, videos, software, assessments, sound recordings and equipment available. The equipment covers a variety of special needs. It includes magnifiers, sensory stimulation materials, switches, computer peripherals, braille and low vision materials, battery operated toys, games, instructional materials, tape recorder/players, braille writers and other items. Due to the large number of items, a complete catalog isn't practical. However, if you call with a specific question (for example, sign language videos), a list can be generated and sent out to you.

The library has a variety of information sources. Call if you have questions. Sometimes you will be referred to your local library or another source.

TERMS OF LOAN

With the exception of the long term loan grant and APH items, all materials are loaned for a period of thirty days. If no one has requested the item, the loan may be renewed. However, once another person has requested an item, you must return it. You have no guarantee of more than thirty days. Usually, this is adequate time to evaluate the item's usefulness.

HOW TO CHECK THINGS OUT

You can borrow things by mail or phone request, or you can come by the library. Since library hours vary, call before coming by.

You will need to leave your name, address, phone number and an alternate phone number, so that we can reach you if necessary. Starting in 1994/95, library users will need to sign a Memorandum of Agreement. This says that you are willing to take responsibility for the materials, and will return them when they are due. For school districts, this form must be signed by the principal at each site. For other programs, the form must be signed by the director. For individuals, the individual signs.

You will be given or sent a transmittal form along with the materials. If the materials were mailed to you, you will receive a second copy of the transmittal form, folded and with SESA's address stamped on it. You must sign that copy, put a stamp on it, and drop it in the mail. This is so we know the materials were received. It gives us some peace of mind that materials aren't lost in the mail. Take a minute to read the transmittal form. The library policy is on the back. You will be held to all terms of use. Keep this form so you have a list of what is checked out to you and when they are due to be returned.

HOW TO RETURN ITEMS

You may bring the items by Monday through Friday, eight a.m. to 4:30 p.m., or you may mail items back. Be sure that all parts of each items are returned. If mailing materials, pack them carefully. If there is a note on the transmittal form about insuring the item when it is returned, be sure to do that.

IF YOU DON'T RETURN ITEMS

Overdue notices are mailed out monthly. If you haven't called to renew, you will receive one. If you get an overdue notice, do not ignore it. Call or write to see if you can extend the loan, or else return the item(s) immediately. If there is a note on the notice indicating that someone else is waiting for the item, have the courtesy to return the item promptly. Remember, the loan was made so that you could evaluate the item(s) for possible purchase, NOT for long term use. Should you persistently ignore overdue notices, you will be billed for the item. We are discussing the possibility of turning names over to a collection agency or reporting to a credit agency. This could affect your credit rating. No kidding. The library can only make many items available to many people if they all come back. We save schools and families thousands of dollars in purchases each year. It isn't unreasonable to expect that users will respond to notices, return materials promptly, and otherwise behave responsibly.

REMEMBER:

- Length of loan is thirty (30) days. We will be as flexible as we can IF you call to discuss the matter.
- Do not ignore overdue notices. Call or write for permission to renew, or else return the item promptly. Non-responsiveness will result in a bill for the item(s).
- Keep all packing materials for returning the item.

- Keep all manuals, cables, parts, etc., with the item. The item will remain checked out to you until all parts are returned. You may be billed for missing parts.
- Treat the item with care. Damage may result in a bill.

Question? Concerns? Please call:

Special Education Service Agency
2217 E. Tudor Road, Suite 1
Anchorage, AK 99507

(907) 562-7372
(907) 562-0545 (FAX)
(907) 563-8284 (TT)

Books

Titl Main	**A special educator's perspective on interfacing special and general education**
Subt	a review for administrators
Type	Book
CNCall	371.9/046/Greenb
Auth	Greenburg, David Eugene
Date	1987
Series Title	An ERIC exceptional child education report
Topics	School management and organization–United States

Titl Main	**A teacher's guide to including students with disabilities in regular physical education**
Type	Book
CNCall	371.9/04486/Block
Main Name	Block, Martin E.,
Date	1958-
Date	c1994
Topics	Physical education for handicapped persons

Titl Main	**Accepting individual differences, AID**
Subt	overview
Type	Book
CNCall	371.9/Accept
Date	1982, c1977
Topics	Prejudices in children
	Attitude change in children
	Social learning

Titl Main	**Accepting individual differences, AID**
Subt	Mental retardation and learning disabilities
Type	Book
CNCall	371.92/Accept
Date	1982, c1977
Topics	Prejudices in children
	Attitude change in children
	Social learning

Titl Main	**Accepting individual differences, AID**
Subt	Motor impairment
Type	Book
CNCall	371.916/Accept
Date	1982, c1977
Topics	Children with physically disabilities in Education
	Attitude change, Prejudices and Social learning in children

Titl Main	**Action for inclusion**
Subt	How to improve schools by welcoming children with special needs into regular classrooms
Type	Book
CNCall	371.9/046/OBrie
Auth	John O'Brien & Marsha Forest with Judith Snow, Jack Pearpoint & David Hasbury
Date	c1989

Titl Main	**Behavior management and community integration for individuals with developmental disabilities and severe behavior problems**
Type	Book
CNCall	153.85/Behavi
Auth	sponsored by the Office of Special Education and Rehabilitative Services and Research and Training Center on Community-Referenced Behavior Management
Date	1988
Topics	Behavior modification Developmentally disabled--Rehabilitation Behavior disorders Behavior Management

Titl Main	**Beyond separate education**
Subt	Quality education for all
Type	Book
CNCall	371.904/Beyond
Date	1989

Titl Main	**Celebrating diversity**
Subt	Building self-esteem in today's multicultural classrooms
Type	Book
CNCall	370.19/0973/Siccon
Auth	Frank Siccone
Date	c1995

Titl Main	**Chances and choices**
Subt	Making integration work
Type	Book
CNCall	371.9/Fullwo
Auth	Fullwood, Deborah
Date	c1990
Topics	Rehabilitation

Titl Main	**Changes in latitudes, changes in attitudes**
Subt	The role of the inclusion facilitator
Type	Book
CNCall	371.904/Change
Auth	written by Carol Tashie ... [et al.] ; photographs by Gary Samson
Date	1993

Titl Main	**Choosing options and accommodations for children (COACH)**
Subt	A guide to planning inclusive education
Type	Book
CNCall	371.9/0460973/Giangr
Auth	by Michael F. Giangrieco. Chigee J. Cloninger. and Virginia Salce Iverson
Date	c1993
Topics	Home and school
	Quality of life

Titl Main	**Communication curriculum**
Subt	Teaching research integration project for children and youth with severe handicaps
Type	Book
CNCall	616.855/Commun
Auth	Kathleen Stremel-Campbell ... [et al.]
Date	1984
Topics	Blind-deaf Means of communication
	Communication
	Teaching research integration project for children and youth with severe handicaps

Titl Main	**Communication placement assessment manual**
Type	Book
CNCall	616.855/Commun
Auth	Kathleen Stremel-Campbell, Judy Clark Guida ; Communication curriculum : teaching research integration project for children and youth with severe handicaps / Kathleen Stremel Campbell ... [et al.]
Date	1984
Topics	Blind-deaf Means of communication
	Chm Testing Communication
	Testing
	Communication curriculum : teaching research integration
	Project for children and youth with severe disabilities

Titl Main	**Community recreation and persons with disabilities**
Subt	Strategies for integration
Type	Book
CNCall	790.196/Schleie
Auth	Schleien. Stuart J
Date	1988
Topics	Children with disabilities--Recreation
	Children with disabilities--Services for

Titl Main	**Community-based curriculum**
Subt	Instructional strategies for students with severe handicaps
Type	Book
CNCall	371.91/Falvey
Auth	Falvey, Mary A
Date	c1989
Topics	Children with disabilities--Life skills guides Study and teaching

Titl Main	**Connecting students**
Subt	A guide to thoughtful friendship facilitation for educators & families
Type	Book
CNCall	371.9/046/Schaff
Auth	written by C. Beth Schaffner, Barbara E. Buswell
Date	c1992
Topics	Social interaction in children Social skills Interpersonal relationships Prejudices in children Attitude change in children

Titl Main	**Cross-age/peer tutoring**
Type	Book
CNCall	371.394/Cross
Date	1978
Topics	Peer-group tutoring of students

Titl Main	**Curriculum considerations in inclusive classrooms**
Subt	Facilitating learning for all students
Type	Book
CNCall	371.9/046/0973/Curricu
Auth	edited by Susan Stainback, William Stainback
Date	c1992
Topics	Education Curricula

Titl Main	**Educating all students in the mainstream of regular education**
Type	Book
CNCall	371.904/Educati
Auth	edited by Susan Stainback, William Stainback, Marsha Forest
Date	1989

Title	**Education**
Type	Book
Author	Graham, Rebecca E
Date	[199-?]
Notes	Reprinted from "The legal rights of Alaskans with disabilities".
Topics	Disabilities Legal status, laws, etc. Civil rights Legal rights of Alaskans with disabilities.

Titl Main	**Effective schools for all**
Type	Book
CNCall	371.9/046/Effect
Auth	edited by Mel Ainscow
Date	1991
Topics	Handicapped children
Topics	Mainstreaming in education

Titl Main	**Exceptions**
Subt	A handbook for teachers of mainstreamed students
Type	Book
CNCall	371.904/Except
Auth	authored by Deborah A. Murphy ... [et al.]
Date	c1988
Topics	Mainstreaming in education
Topics	Handicapped children--Education
Topics	Teachers of handicapped children

Titl Main	**How to integrate autistic and other severely handicapped children into a classroom**
Type	Book
CNCall	371.94/Koegel
Auth	Koegel, Robert L
Date	c1982
Topics	Autistic children Education Developmentally disabled children Education Child development deviations Autism

Titl Main	**I make a difference!**
Subt	A curriculum guide building self-esteem and sensitivity in the inclusive classroom
Type	Book
CNCall	371.914/Tamare
Auth	Tamaren, Michele C
Date	c1992
Topics	Learning disabilities Learning disabled children

Title Main	**Ideas for Inclusion**
Subt	The classroom teacher's guide to integrating studets with severe disabilities
Type	Book
CNCall	371.904/Bening
Auth	Beninghof, Anne M.
Date	c1993
Topics	Mainstreaming in education Classroom management Classroom teacher's guide to integrating students with severe disabilities

Titl Main	**Implementing best practices for all students in their local school**
Subt	inclusion of all students through family and community involvement, collaboration, and the use of school planning teams and individual student planning teams
Type	Book
CNCall	371.904/Fox
Auth	Timothy J. Fox, Wes Williams
Date	[1991]

Titl Main	**Inclusion: moving beyond our fears**
Type	Book
CNCall	371.904/Inclus
Auth	editied by Joy Rogers
Date	1994
Topics	Effects of inclusin on nondisabled classmates Staff organization and inservice training Effective teaching methods Using assisstive technology Inclusion from parents point of view

Titl Main	**[Inclusive Education Articles]**
Subt	New Hampshire on Disability
Type	Book
CNCall	371.904/Integr
Date	1990
Topics	Education (course materials) Student Inclusion Checklist

Titl Main	**Information packet level #3**
Type	Book
CNCall	305.9/0816/Inform
Date	[198-]
Topics	Community integration resource group -- PREP : preparing regular education personnel to support best practices -- The Indiana least restrictive environment initiative -- Elements of interaction -- Terms and issues related to "LRE" -- Community integration resource group bibliography -- Readings for parents : least restrictive environment -- Students with severe disabilities: where do they go to school? -- Community integration resource group : quality indicators of exemplary programs -- Students with severe disabilities : a look at the present with an eye toward the future -- What parents want for their children's future : dreaming a new dream -- Guidelines for reporting and writing about people with disabilities -- Least restrictive environment : a place in the community

Titl Main	**Integrated programming**
Subt	Strategies, methods and monitoring of services for students with severe and multiple handicaps
Type	Book
CNCall	371.904/Integra
Date	[1992?]
Description	Strategies for identifying and selecting instructional priorities / Philippa H. Campbell ... [et al.] -- Monitoring student progress / Karen Clegg, Philippa H. Campbell, Robert Wetherbee.
Topics	Teaching

Titl Main	**Integrated therapies**
Subt	Speech and language, physical, occupational
Type	Book
CNCall	371.9/Craig
Auth	Susan Craig, Ann G. Haggart
Date	c1984

Titl Main	**Integrating adolescents with severe handicaps into the public school system**
Subt	A case study
Type	Book
CNCall	371.9/046/Integr
Auth	Barbara Wilcox ... [et al.]
Date	[199-?]

Titl Main	**Integration strategies for students with handicaps**
Type	Book
CNCall	371.9/Inter
Date	1989

Titl Main	**It's never too early, it's never too late a booklet about personal futures planning**
Subt	For persons with developmental disabilities, their families and friends, case managers, service providers and advocates
Type	Book
CNCall	362.41/084/Mount
Date	1989
Topics	Services for. Employment planning, education, and life skills guides for the developmentally disabled. Vocation education and Transition

Titl Main	**Lessons for inclusion**
Subt	Including everyone, liking myself, making & keeping friends, cooperating with others
Type	Book
CNCall	371.9/046/Lesson
uth	Terri Vandercook ... [et al.]
Date	1993

Titl Main	**Mainstreaming in early childhood programs**
Subt	An in-service training manual for accommodating all children
Type	Book
CNCall	371.9/0472/Wehren
Auth	by Aileen Wehren. Helen Coker Reid. Sharon Pasalich McDaniel
Date	1982
Topics	Early childhood education

Titl Main	**Mainstreaming preschoolers**
Subt	Children with speech and language impairments : a guide for teachers. parents. and others who work with speech and language impaired preschoolers
Type	Book
CNCall	371.9/142/Mainst
Auth	by Jacqueline Liebergott ... [et al.]
Date	1978
Topics	Speech disorders in children Children--Language Language acquisition Language disorders in children

Titl Main	**Mainstreaming preschoolers**
Subt	Children with emotional disturbance : a guide for teachers. parents. and others who work emotionally disturbed preschoolers
Type	Book
CNCall	371.94/Mainst
Auth	by Miriam G. Lasher ... [et al.]
Date	[1978?]
Topics	Mentally ill children--Education (Preschool)

Titl Main	**Mainstreaming preschoolers**
Subt	Children with learning disabilities : a guide for teachers. parents. and others who work learning disabled preschoolers
Type	Book
CNCall	371.914/Mainst
Auth	by Alice H. Hayden ... [et al.]
Date	[1978?]
Topics	Children with Learning disabilities--Education (Preschool)

Titl Main	**Mainstreaming preschoolers**
Subt	Children with orthopedic handicaps : a guide for teachers. parents. and others who work orthopedically handicapped preschoolers.
Type	Book
CNCall	371.916/Mainst
Auth	by Shari Stokes Kieran ... [et al.]
Date	[1978?]
Topics	Physically handicapped children--Education (Preschool) United States. Dept. of Health. Education and Welfare. Office of Human Development Services. Administration for Children. Youth and Families. Start Bureau Project Start

Titl Main	**Mainstreaming preschoolers**
Subt	Children with mental retardation : a guide for teachers, parents, and others who work with mentally retarded preschoolers
Type	Book
CNCall	371.92/Mainst
Auth	by Eleanor Whiteside Lynch ... [et al.]
Date	[1978?]
Topics	Children with Mental Illnesses--Education (Preschool) Lynch, Eleanor Whiteside United States. Dept. of Health, Education and Welfare. Office of Human Development Services. Administration for Children, Youth and Families. Start Bureau Project Start

Titl Main	**Mainstreaming preschoolers**
Subt	Children with health impairments : a guide for teachers, parents, and others who work with health impaired preschoolers
Type	Book
CNCall	371.9/Mainst
Auth	by Alfred Healy ... [et al.]
Date	[1978?]
Topics	Chronically ill children--Education (Preschool) Lynch, Eleanor Whiteside United States. Dept. of Health, Education and Welfare. Office of Human Development Services. Administration for Children, Youth and Families. Start Bureau Project Start

Titl Main	**Natural supports in inclusive schools**
Subt	Curricular and teaching strategies
Type	Book
CNCall	371.904/Jorgen
Auth	Jorgensen, Cheryl M
Date	[199-?]
Topics	Education Curriculum

Titl Main	**Preparing to integrate students with behavioral disorders**
Type	Book
CNCall	371.93/Prepar
Auth	Robert A. Gable ... [et al.]
Date	1991
Series Title	CEC mini-library : working with behavioral disorders
Topics	Problem children Education

Titl Main	**Resources for teaching young children with special needs**
Type	Book
CNCall	372.21/Deiner
Auth	Deiner, Penny Low
Date	c1983
Topics	Education, Preschool Individualized instruction

Titl Main	**Restructuring for caring and effective education**
Subt	An administrative guide to creating heterogeneous schools
Type	Book
CNCall	371.9/0460973/Restru
Auth	edited by Richard A. Villa ... [et al.]
Date	c1992
Topics	Educational change

Titl Main	**Right from the start**
Subt	Instructional manual
Type	Book
CNCall	371.904/Sheriff
Auth	by Georgia Sheriff and Susan Shuster
Date	c1989
Topics	Education, Preschool

Titl Main	**Strategies for making inclusion successful**
Type	Book
CNCall	371.904/Strate
Date	[199-?]
Topics	Education

Titl Main	**Support networks for inclusive schooling**
Subt	Interdependent integrated education
Type	Book
CNCall	371.904/Support
Auth	edited by William Stainback and Susan Stainback
Date	c1990

Titl Main	**Supporting children in the classroom**
Subt	An integrating aide's handbook ; Inclusion : a teacher's guide
Type	Book
CNCall	371.9/046/Suppor
Date	c1993
Topics	Special education

Titl Main	**The Comprehensive local school**
Subt	Regular education for all students with disabilities
Type	Book
CNCall	371.904/Compre
Auth	Wayne Sailor ... [et al.]
Date	1989
Topics	Disability--Services for--United States

Titl Main	**The inclusion papers**
Subt	Strategies to make inclusion work : a collection of articles from the Centre
Type	Book
CNCall	371.9/046/Pearpo
Auth	by Jack Pearpoint, Marsha Forest and Judith Snow
Date	1993
Topics	Special education

Titl Main	**The Least restrictive alternative**
Subt	Principles and practices
Type	Book
CNCall	344.73/0791/Least
Auth	by H. Rutherford Turnbull, editor
Date	c1981

Titl Main	**The Nonrestrictive environment**
Subt	On community integration for people with the most severe disabilities
Type	Book
CNCall	362.4/048/Nonres
Auth	by Steve J. Taylor ....[et. al.]
Date	1987
Topics	Chrn Social networks On community integration for people with the most sever disabilities

Titl Main	**Toward inclusive classrooms**
Type	Book
CNCall	371.904/60973/Toward
Date	c1994
Seri Titl	Teacher to teacher series
Topic	Case studies

Titl Main	**Trainer's guide for use with Mainstreaming in early Childhool programs**
Subt	An in-service training manual for accommodating all children
Type	Book
CNCall	371.9/0472/Wehren
Auth	By ASileen Wehren, Helen Coker Reid. Sharon Pasalich McDaniel
Date	1982
Topics	Children with disabilities in Education (Preschool) Early childhood education

Titl Main	**Traumatic brain injury in children and adolescents**
Subt	A sourcebook for teachers and other school personnel
Type	Book
CNCall	617.48/1044083/Mira
Auth	Mary P. Mira. Bonnie Foster Tucker. Janet Siantz Tyler
Date	c1992
Topics	traumatic brain injury, closed injury Brain-damaged children Rehabilitation Brain Wounds and injuries Chrn Patients. Rehabilitation Brain damage Complications and sequelae Brain-damaged children Education

Titl Main	**Treasures**
Subt	A celebration of inclusion
Type	Book
CNCall	371.904/Treasu
Auth	Created and edited by Ann Donoghue Dillon ... [et al.] : photographs by Gary Samson
Date	1993

Titl Main	**Unlocking doors to friendship**
Type	Book
CNCall	371.9/046/Fox
Auth	C. Lynn Fox and Francine Lavin Weaver
Date	c1983
Topics	Prejudices in children
	Attitude change in children
	Social learning
	Empathy

Titl Main	**What people need to believe and know to include students with severe disabilities in regular classes**
Subt	Consensus of New Hampshire's Personnel Preparation Task Force
Type	Book
CNCall	371.904/What
Date	[199-?]
Topics	Education Curriculum

Titl Main	**What to look for when observing classroom lessons or typical school routines in order to identify participation opportunities for students with severe disabilities**
Type	Book
CNCall	371.904/What
Date	[199-?]
Topics	Education Curriculum

Titl Main	**Winners all**
Subt	A call for inclusive schools
Type	Book
CNCall	371.904/Winner
Date	1992
Topics	The report of the NASBE Study Group on Special Education

Titl Main	**You can't say you can't play**
Type	Book
CNCall	372.11/023/Paley
Auth	Vivian Gussin Paley
Date	c1992
Topics	Kindergarten Case studies
	Rejection (Psychology) in children Case studies
	Social interaction in children Case studies
	Play Case studies
	Teacher-student relationships Case studies

Videos

Titl Main	**Andreas**
Subt	Outcomes of inclusion
Type	Visual Material
CNCall	371.904/Andrea
Auth	produced by UVM Video. University of Vermont
Date	c1991
Topics	Yuan, Andreas

Titl Main	**Assistive technology**
Subt	We can do it
Type	Visual Material
CNCall	371.9/Techno
Auth	developed by the American Speech-Language-Hearing Association : authors, Sarah W. Blackstone ... [et al.]
Date	c1992
Series Title	Technology in the classroom
Description	Demonstrates assistive technology and augmentative communication in classroom situations; for use with four books: Education module. Positioning, access and mobility module. Listening and hearing and Communication module.
Topics	Self-help devices for the disabled Communication

Titl Main	**Dream catchers**
Subt	Circles of support for persons with disabilities
Type	Visual Material
CNCall	362.404/Dream
Auth	Producer. scriptwriter. Samantha Goodall ; director. Gary Samson : produced by Instructional Services for Institute on Disability. University of New Hampshire
Date	c1992
Nar	Narrator. Merrill Black.
Topics	Looks at ways of supporting individuals with disabilities. Handicapped Social skills Friendship Helping behavior

Titl Main	**Equal access for all**
Type	Visual Material
CNCall	371.904/Equal
Auth	produced by Mitch Schuldman
Date	[199-?]
Topics	Shows inclusion in the schools. Mainstreaming in education

Titl Main	**Going to school with facilitated communication**
Type	Visual Material
CNCall	616.855/Going
Auth	Produced by Facilitated Communication Research Team of Syracuse University: executive produced. Douglas Biklen: producers and directores. Shoswati Nina Saha. Janet Duncan. Missy Morton: writers. Janet Duncan. Missy Morton. Shoswati Nini Saha
Date	c1991
Topics	Communication Language acquistion Children Language

Titl Main	**Hello my friends**
Type	Visual Material
CNCall	371.904/Hello
Auth	Writer and director. Jon Stoddart ; produced for the BC Association for Community Living (BCACL) : Jon Stoddart Productions
Date	c1990
Topics	Discusses the mainstreaming of preschool children.

Titl Main	**Inclusion of children and youth with attention deficit disorders**
Type	Visual Material
CNCall	618.92/8589/Inclus
Auth	Executive producer. Robert M. Hanson : National Professional Resources. Inc.
Date	c1993
Topics	For teachers and parents; suitable for staff development and teacher training programs; focuses on causes. diagnosis and treatments for Attention Deficit Hyperactivity Disorder (ADHD). as well as home-based and school intervention programs. Attention deficit disorder Hyperactive children Behavior modification

Titl Main	**Integration can work**
Subt	A case study of a learning environment : a slide presentation
Type	Visual Materal
CNCall	371.904/Barnes
Auth	by Ellen B. Barnes. Peter Knoblock
Date	[198-?]

Titl Main	**Learning functional academics in regular classes [videorecording]**
Type	Visual Material
CNCall	371.9/046/Learni
Auth	Alison Ford
Date	c1990

Titl Main	**Miller's MAP**
Type	Visual Material
CNCall	371.904/Miller
Auth	With Marsha Forest. Jack Pearpoint. Bob Reagston : executive producers. Expectations Unlimited. Inclusion Press : director. Joe Magiera ; producer. Timothy L. Cairns
Date	c1992

Titl Main	**Plain talk**
Subt	Teacher to teacher
Type	Visual Material
CNCall	371.904/Plain
Auth	AGH Associates. Inc. ; producer and director. Ann G. Haggart : videographer and editor. Mark Weissberg
Date	c1993

Titl Main	**Regular lives**
Type	Visual Material
CNCall	362.1/Regula
Auth	A production of State of the Art. Inc. ; produced and directed by Tom Goodwin. Gerardine Wurzburg ; writer. Tom Goodwin
Date	c1987
Topics	Developmentally disabled Children with Disabilties--Rehabilitation. Education & future Employment

Titl Main	**Right from the start**
Type	Visual Material
CNCall	371.904/Right
Auth	a product of Indiana University Television
Date	c1989
Topics	Education. Preschool

Titl Main	**The Concept and the practice**
Type	Visual Material
CNCall	371.904/Concept
Auth	Indiana University Production ; executive producer. Leonard C. Burrello : producers. Leonard C. Burello. John Burrello. John Winninger.
Date	c1993
Series title	Inclusion series : The two faces of inclusion : The concept and the practice & Facing inclusion together through

Titl Main	**With a little help from my friends**
Type	Visual Material
CNCall	371.904/With
Auth	directed by Marsha Forest & Valdemar de Sousa ; produced by Waterloo Region Roman Catholic Separate School Board. Ontario Association for Community Living. Centre for Integrated Education. Vison Videomagic Concepts and Production Ltd.
Date	c1988
Topics	Looks at inclusion in a school.

Inclusion of Students Who are Deaf-Blind

Books

Titl Main	**Building effective transition strategies for individuals with deaf-blindess**
Type	Book
Cn Call	371.911/Buildi
Auth	Cathy Mouchka [et al.]
Date	1994
Topics	Blind-deaf-services for, education life skills guides Vocational education and transition

Titl Main	**Inclusive instructional design**
Subt	Inclusion of all students through family and community involvement, collaboration, and the use of school planning teams and individual student planning teams
Type	Book
CNCall	371.911/Inclus
Auth	Katheleen Gee ... [et al.]
Date	1994
Topics	Blind-deaf children Education Facilitating informed and active learning for individuals who are deaf-blind in inclusive schools

Titl Main	**Supporting young adults who are deaf-blind in their communities**
Type	Book
CNCall	362.41/0835/Suppor
Topics	A transition planning guide for service providers, families and friends
Date	c1995
	Services for Blind-deaf
	Care Blind-deaf
	Rehabilitation Blind-deaf

Titl Main	**Transition services for youths who are deaf-blind**
Subt	A "best practices" guide for educators
Type	Book
CN Call	371.911/Transi
Auth	Jane M. Everson, editor
Date	1995
Topics	Blind-deaf-services for, education, life skills guides Vocational education and transition

Titl Main	**Welcoming students who are deaf-blind into typical classrooms**
Subt	Facilitating School Participation. Learning. and Friendship
Type	Book
CNCall	371.10973/Welcom
Auth	Norris Haring and Lyle Romer
Date	1995
Topics	Blind-Deaf Children and education

Videos

Titl Main	**Collaborative teaming for inclusion oriented schools**
Type	Visual Material
CNCall	371.904/Collab
Auth	Kansas State Dept. of Education. Special Education Outcomes Team : Facilitating The Least Restrictive Environment for Students with Deaf-Blindness in School and Community Project
Date	1991
Topics	The education of special needs children using the team approach. Inclusive education.

Titl Main	**MAPS**
Subt	A plan for including all children in schools
Type	Visual Material
CNCall	371.904/MAPS
Auth	Presented by the Kansas State Dept. of Education. Services for Deaf-Blind Children and Youth Project ; produced by Innovative Communications Corporation
Date	1990
Topics	The planning process for the education of special needs children.

Titl Main	**You and me**
Subt	A Five Part Video Series About Educating Children Who are Deaf-Blind
Type	Visual Material
Auth	Teaching Research Division Western ORegon State College
Date	1994
Topics	Interpreter-Tutor Communication Mobility Social Networks

Inclusion of Students Who are Blind/Visually Impaired

Books

Titl Main	**--And as you can see-- a manual for teachers with a partially sighted pupil in a regular classroom**
Type	Book
CNCall	371.911/McKenz
Auth	D. Ross McKenzie
Date	1990
Topics	Children, Blind Education Visually impaired children Education

Titl Main	**A blind child in my classroom**
Subt	A handbook for primary teachers
Type	Book
CNCall	371.911/Gale
Auth	Gillian Gale & Peter Cronin
Date	1990
Series Title	Burwood Educational Series ; no. 2
Note	Previously published as: What's this blind child doing in my class.
Topics	Blind Education

Titl Main	**Integrating the visually impaired student into physical education**
Subt	A teacher's resource manual
Type	Book
CNCall	613.7/042/Integr
Date	c1988
Note	"A component of the Canadian Blind Sports Association activity integration program"
Topics	Children, Blind--Recreation Visually handicapped children--Recreation Physical education for handicapped children

Titl Main	**Mainstreaming preschoolers**
Subt	Children with visual handicaps : a guide for teachers, parents, and others who work with visually handicapped preschoolers
Type	Book
CNCall	371.911/Mainst
Auth	by Lou Alonso ... [et al.]
Date	[1978]
Topics	Visually impaired children--Education (Preschool)

Titl Main	**Mainstreaming the visually impaired child**
Type	Book
CNCall	371.911/Mainst
Auth	edited by Gloria Calovini
Date	[198-?]
Topics	Visually impaired children Education Children, Blind Education

Titl Main	**Residential school or mainstreaming?**
Subt	A guide for parents of the visually impaired child
Type	Book
CNCall	371.911/Webste
Auth	Webster, Richard
Date	c1989
Topics	Visually impaired children--Education Children, Blind--Education

Titl Main	**Visually impaired students in the regular classroom**
Subt	A resource book
Type	Book
CNCall	371.911/Visual
Date	[1981]
Topics	Visually impaired children Education

Videos

Titl Main	**A Special start**
Type	Visual Material
CNCall	371.911/Specia
Auth	presented by The Lighthouse National Center for Vision and Child Development ; producer, Mary Ann Lang ; associate producer, Norman Katz ; producer/directory, Lucinda Constable
Date	c1991
Topics	Visually handicapped children Education (Preschool)

Titl Main	**Accepting individual differences, AID**
Subt	Visual impairment
Type	Visual Material
CNCall	371.911/Accept
Date	1982, c1977
Topics	Prejudices in children, Attitude change in children & Social learning

Titl Main	**Bright beginnings**
Type	Visual Material
CNCall	649.1/511/Bright
Auth	executive producer. Phillip L. Whiteman ; Braille Institute ; RCA Columbia
Date	c1991
Series title	Insight series
Topics	Helps to enrich the lives of blind and visually impaired children by mainstreaming, playtime, and building on the child's interest. Children, Blind Visually impaired children Parent and child Children, Blind Family relationships

Titl Main	**Integrating our preschoolers**
Type	Visual Material
CNCall	371.911/Integr
Auth	Marge Mochak
Date	[1990]
Topics	Children, Blind & Visually impaired--Education

Titl Main	**Social skill acquisition for children with visual impairments**
Type	Visual Material
CNCall	371.911/Social/Pt. 1
Auth	Dr. Sharon Zell Sacks
Date	1992
Topics	Social Skills Children, Blind & Visually impaired--Education

Titl Main	**Social skill acquisition for children with visual impairments Pt. 2**
Type	Visual Material
CNCall	371.911/Social/Pt. 2
Auth	Dr. Sharon Zell Sacks
Date	1992
Topics	Social skills Children, Blind & Visually impaired--Education

Titl Main	**The Vision video**
Subt	Integration of students with visual impairment
Type	Visual Material
CNCall	371.911/Vision
Auth	Metropolitan Toronto School Board ; produced by the Production Partners
Date	c1993
Topics	Provides in-service training for classroom teachers and administrators who have visually impaired student integrated into their school settings. Covers degrees of visual impairment, adaptive methods and materials, teaching methods for braille-using and visually limited students technology, partnerships between itinerant vision teachers, regular classroom teachers, parents and students. Integration of students with visual impairment's in the 90's

Inclusion of Students
Who are Deaf/Hard of Hearing

Books

Titl Main	**A school handbook on classroom amplification equipment**
Type	Book
CNCall	617.89/Allen
Auth	Laurie Allen
Date	[199-?]
Topics	Hearing aids Hearing impaired children Hearing

Titl Main	**Effectively educating students with hearing impairments**
Type	Book
CNCall	371.912/Luetke
Auth	Barabar Luetke-Stahlman
Date	1990
Topics	Deaf children in education Hearing impaired children in education

Titl Main	**Let's learn about deafness**
Subt	Classroom activities
Type	Book
CNCall	305.908/162/Stone
Auth	Developed by Rachel Stone-Harris ; instructional design by Jim Kearney
Date	c1988
Series Title	Into the mainstream Deafness--Social aspects

Titl Main	**Mainstreaming preschoolers**
Subt	Children with hearing impairment : a guide for teachers, parents, and others who work with hearing impaired preschoolers
Type	Book
CNCall	371.912/Mainst
Auth	by Rita Ann LaPorta ... [et al.]
Date	[1978?]
Topics	Hearing impaired & Deaf children--Education (Preschool)

Titl Main	**Manager's guide for the tutor/notetaker**
Subt	Providing academic support to mainstreamed deaf students
Type	Book
CNCall	371.9/127/Manage
Auth	Russell T. Osguthorpe ... [et al.]
Date	c1980
Topics	Hearing impaired and Deaf Education Teacher-student relationships

Titl Main	**Our forgotten children**
Subt	Hard of hearing pupils in the schools
Type	Book
CNCall	371.912/Our
Auth	Editor. Julia Davis
Date	1990
Topics	Hearing impaired children Education Children. Deaf Education

Titl Main	**Teacher's resource kit for hearing teachers of deaf adults**
Type	Book
CNCall	371.9/127/Teache
Auth	Prepared by Gallaudet College Division of Public Services
Date	[197-?]
Topics	Hearing impaired--Education Teacher-student relationships

Titl Main	**There's a hearing impaired child in my class**
Subt	A learning packet about hearing loss for public school teachers
Type	Book
CNCall	371.912/Nussba
Auth	Nussbaum. Debra
Date	c1988
Series Title	Into the mainstream
Topics	Hearing impaired & Deaf children--Education Teacher-student relationships

Titl Main	**There's a hearing impaired student in my classroom**
Type	Book
CNCall	371.912/Mead
Auth	Mead. Rebecca A
Date	[1992]
Topics	Hearing impaired children Education Children. Deaf Education

Audio/Visual

Titl Main	**Access for all**
Subt	Integrating deaf, hard of hearing and hearing preschoolers
Type	Visual Material
CNCall	371.912/Access
Auth	Producers, Gail Solit, Maral Taylor, Angela Bednarczyk ; production director, Ron Reed ; scriptwriter, Debra Nussbaum
Date	c1992
Description	Shows the integration of deaf, hard of hearing and hearing

	children into one preschool setting.
Topics	Children. Deaf Education (Preschool) Hearing impaired children Education (Preschool)

Titl Main	**Accepting individual differences. AID**
Subt	Hearing impairment
Type	Sound recording
CNCall	371.912/Accept
Date	1982. c1977
Topics	Hearing impaired children Education Prejudices in children Attitude change in children Social learning

Collaborative Teaching and Cooperative Learning

Books

Titl Main	**A teacher's guide to cooperative discipline**
Subt	How to manage your classroom and promote self-esteem
Type	Book
CNCall	371.5/Albert
Auth	Albert, Linda
Date	c1989
Topics	School discipline--Handbooks, manuals, etc
	Classroom management--Handbooks, manuals, etc

Titl Main	**Collaborative teams for students with severe disabilities**
Subt	Integrating therapy and educational services
Type	Book
CNCall	371.9/Rainfo
Auth	Rainforth, Beverly,
Date	c1992
Topics	Children with disabilities--Education & Rehabilitation
	Teaching teams

Titl Main	**Cooperative learning**
Type	Book
CNCall	371.102/Kagan
Auth	Kagan, Spencer
Date	c1992
Topics	Teaching
	Cooperativeness in children

Titl Main	**Cooperative learning and language arts**
Type	Book
CNCall	371.102/Stone
Auth	Jeanne M. Stone ; in consulation with Dr. Spencer Kagan
Date	c1994
Topics	Teaching
	Language arts
	Cooperativeness in children

Titl Main	**Cooperative learning and strategies for inclusion**
Subt	Celebrating diversity in the classroom
Type	Book
CNCall	371.9/0460973/Cooper
Date	c1993
Series Title	Children. youth & change : sociocultural perspectives
Topics	Special education Intercultural education

Titl Main	**Creativity and collaborative learning**
Subt	A practical guide to empowering students and teachers
Type	Book
CNCall	371.395/Creati
Date	c1994
Topics	Group work in education Peer-group tutoring of students

Titl Main	**Facilitator's manual for collaborative consultation**
Subt	Principles and techniques
Type	Book
CNCall	371.9/Idol
Auth	Idol, Lorna
Date	1984
Topics	Teachers of children with disabilities Teaching teams Parent-teacher relationships Behavior modification

Titl Main	**Increasing the success of your ESL students through cooperative learning and sheltered English**
Subt	Resource handbook
Type	Book
CNCall	428.24/Segal
Auth	Segal, Bertha E
Date	[1988]
Topics	English language--Study and teaching--Foreign speakers Reading & Writing

Titl Main	**Lessons for little ones**
Subt	Language arts & cooperative learning
Type	Book
CNCall	371.102/Curran
Auth	Lorna Curran : in consultation with Dr. Spencer Kagan
Date	c1994
Topics	Teaching Language arts Cooperativeness in children

Titl Main	**Play for play's sake**
Subt	Cooperative games as a strategy for integration
Type	Book
CNCall	790.196/McGill
Auth	McGill. Judith
Date	1984
Topics	Children with mental disabilities--Recreation Play Games

Titl Main	**Play together, grow together**
Subt	A cooperative curriculum for teachers of young children
Type	Book
Auth	Adcock. Don
Date	1983
Topics	Play Education. Preschool

Titl Main	**Program review of the Bethel Cooperative Summer Youth Employment and Training Program**
Type	Book
CNCall	331.34/Castle
Auth	Castle, Kathleen L
Date	[1987?]
Topics	Youth--Employment Bethel Cooperative Summer Youth Employment and Training Program

Titl Main	**The cooperative classroom**
Subt	Social and academic activities
Type	Book
CNCall	371.102/Rhoade
Auth	Jacqueline Rhoades and Margaret E. McCabe
Date	c1992
Topics	Classroom management Social interaction in children Social skills Academic achievement

Audio/Visual

Titl Main	**Cooperative discipline**
Subt	Classroom management that promotes self-esteem
Type	Visual Material
CNCall	371.102/Cooper
Date	c1990
Description	On cover: Videocassette one. session 1 (overview). Part 1. the basics of behavior -- Part 2. the building blocks of self-esteem -- Part 3. the school action plan. Presented by Jon Schumacher.
Topics	Classroom management School discipline

Titl Main	**Cooperative switch games**
Type	Software
CNCall	PUBLIC DOMAIN SOFTWARE BOX
Description	1 floppy disk
Requirements	System requirements: IBM or compatible computer.
Note	Send in a blank disk and we will duplicate the program for you. Public domain.
Description	A collection of shoot-em-up arcade games. The ideas is that one person can use the keyboard to move the ship around while the switch user's switch takes the place of the fire key (via the PC-Pedal). Disk includes clones of Asteroids, Space Invaders and some other games. Also includes Slowdown to adjust the speed on any program.
Topics	Computer games Switches

Titl Main	**Facing inclusion together through collaboration and co teaching**
Type	Visual Material
CNCall	371.904/Facing
Auth	Indiana University Production ; executive producer, Leonard C. Burrello ; producers, Leonard C. Burello, John Burrello, John Winninger.
Date	c1993
Series title	Inclusion series : The two faces of inclusion : The concept and the practice & Facing inclusion together through

Titl Main	**Numbered heads together**
Type	Visual Material
CNCall	371.102/Number
Auth	A production of Resources for Teachers ; director, Spencer Kagan ; produced by Robin Tanner
Date	c1990
Topics	Demonstrates cooperative learning. Teaching Cooperativeness in children

Titl Main	**Pairs check : math manipulatives**
Type	Visual Material
CNCall	371.102/Pairs
Auth	A production of Resources for Teachers ; produced by Robin Tanner
Date	c1992
Topics	Demonstrates cooperative learning. Teaching Cooperativeness in children

Titl Main	**Pairs check**
Type	Visual Material
CNCall	371.102/Pairs
Auth	A production of Resources for Teachers ; directed by Spencer Kagan ; produced by Robin Tanner
Date	c1991
Topics	Demonstrates cooperative learning. Teaching Cooperativeness in children

Titl Main	**We can talk!**
Type	Visual Material
CNCall	371.102/We
Date	c1988
Description	Contents: Part 1 : Cooperative learning & linguisting minority students – Part 2 : Theory in practice. With Spencer Kagan. Demonstrates cooperative learning, where children work on activities in small groups to build teams within the classroom.
Topics	Cooperativeness in children Teaching Children Language

Books

Title	**Applause!**
SubTitle	Activities for building confidence through dramatic arts
Type	Book
Author	Salmon, Linda Suzanne
Date	c1992
Topics	Drama in education Social skills

Title	**Beyond gentle teaching**
Subt	A nonaversive approach to helping those in need
Type	Book
Author	McGee, John J
Date	c1991
Topic	Social work with diabilities

Title	**Communication-based intervention for problem behavior**
Subt	A user's guide for producing positive change
Type	Book
Date	c1994
Topics	Developmentally-disabled Rehabilitation Mental Disabilities Behavior modification

Title	**Conflict resolution and mediation for peer helpers**
Type	Book
Author	Sorenson, Don L.
Date	c1992
Topics	Mediations Peer counseling of students Leadership Listening Conflict management

Titl Main	**How to teach self-management to people with severe disabilities**
Subt	A training manual
Type	Book
CNCall	155.418/Koegel
Auth	Lynn Kern Koegel, Robert L. Koegel, Deborah Rumore Parks
Date	[1993?]
Topics	Self-management (Psychology) Behavior modification

Title	**Leadership skills for peer group facilitators**
Type	Book
Auth	Sturkie, Joan
Date	c1992
Topics	Peer group counseling of students
	Student counselors
	Training of
	Leadership

Title	**Learning to care**
Subt	Classroom activities for social and affective development
Type	Book
Date	c1983
Topics	Affective education
	Socialization
	Social skills
	Classroom management
	Creative activities and seatwork
	Classroom activities for social and affective development

Titl Main	**Self-monitoring procedures for high school students with severe handicaps**
Type	Book
CNCall	155.418/Self
Auth	Jeffrey Sprague ... [et al.]
Date	[199-?]
Topics	Self-management (Psychology)
	Behavior modification

Title	**Signing for kids**
Type	Book
Author	Flodin, Mickey
Date	c1991
Topics	An introduction to the expressive language of the deaf, organized by Topics areas, including Pets, People, Numbers, Sports, Travel, Science, etc.
	Sign language
	Juvenile literature

Title	**Skillstreaming in early childhood**
Subt	Teaching prosocial skills to the preschool and kindergarten child
Type	Book
Author	McGinnis, Ellen
Date	1990
Topics	Social skills
	Behavior modification

Title	**Skillstreaming the adolescent**
Subt	A structured learning approach to teaching prosocial skills
Type	Book
Auth	Goldstein, Arnold P
Date	1980
Topics	Social skills--Curricula Behavior modification

Title	**Skillstreaming the elementary school child**
Subt	A guide for teaching prosocial skills
Type	Book
Auth	McGinnis, Ellen
Date	1984
Topics	Social skills--Curricula Behavior modification

Title	**Skillstreaming the elementary school child** :
Subt	A guide to teaching prosocial skills: Program forms
Type	Book
Auth	McGinnis, Ellen
Date	1984
Topics	Social skills--Curricula Behavior modification

Title	**Social acceptance : key to mainstreaming**
Subt	Key to mainstreaming
Type	Book
Auth	Fox, C. Lynn
Date	c1983
Topics	Social skills--Study and teaching Mainstreaming in education Social learning Empathy

Title	**Social decision-making skills**
Subt	A curriculum guide for the elementary grades
Type	Book
Auth	Elias, Maurice J
Date	1989
Topics	Decision-making--Study and teaching (Elementary) Social skills--Study and teaching (Elementary) Social adjustment--Study and teaching (Elementary) Problem solving--Study and teaching (Elementary)

Title	**Teaching social skills to youth**
Subt	a curriculum for child-care providers
Type	Book
Auth	Dowd. Tom
Date	c1992
Topics	Social skills-Curricula Social skills-Adolescents Interpersonal relations Behavior modification

Title	**The prepare curriculum**
Subt	Teaching prosocial competencies
Type	Book
Auth	Goldstein. Arnold P
Date	c1988
Topics	Social skills--Curricula Behavior modification

Title	**The tough kid book**
Subt	practical classroom management strategies
Type	Book
Auth	Rhode. Ginger
Date	c1993
Topics	Classroom management Behavior modification Social skills

Title	**Think aloud**
Subt	Increasing social and cognitive skills. a problem solving program for children : classroom program grades 1-2
Type	Book
Auth	Camp. Bonnie W
Date	c1985
Topics	Problem solving in children--Programmed instruction Verbal ability in children--Programmed instruction Social interaction in children Cognition in children Agressiveness in children

Title	**Think aloud**
Subt	increasing social and cognitive skills. a problem solving program for children : classroom program grades 3-4
Type	Book
Auth	Bash. Mary Ann S
Date	c1985
Topics	Problem solving in children--Programmed instruction Verbal ability in children--Programmed instruction Social interaction in children--Programmed instruction Cognition in children--Programmed instruction Agressiveness in children--Treatment--Programmed instruction

BEST COPY AVAILABLE

Title	**Think aloud**
Subt	Increasing social and cognitive skills. a problem solving program for children. classroom program grades 5-6
Type	Book
Auth	Bash. Mary Ann S
Date	c1985
Topics	Problem solving in children--Programmed instruction Verbal ability in children--Programmed instruction Social interaction in children--Programmed instruction Cognition in children--Programmed instruction Agressiveness in children--Treatment--Programmed instruction

Games

Title	**Communicate**
Subt	An educational activity to reinforce social communication skills during adolescence
Type	Reality
Date	c1986
Notes	Parts list: 1 game board -- 3 sets of cards -- 1 die -- 6 game pieces -- 1 rule book. Includes bibliographical references. For grades six to twelve ; for two to six players purpose is to reinforce appropriate social communication skills.
Topics	Interpersonal relations

Title	**Communicate junior**
Subt	An educational activity to reinforce social skills in elementary-age children
Type	Reality
Date	c1991
Notes	Parts list: 1 game board -- 1 set of cards -- 1 spinner -- 4 game pieces -- 1 barrier (plastic stand and cardboard insert) -- 4 chips. Includes bibliographical references. For ages five to ten ; for two to four players :
Topics	Social skills Communication skills

Title	**Take a deep breath**
SubTitle	The kids' play-away stress book
Type	Reality
Date	c1992
Series	Play and read book Kit to help children deal with stress. Includes activities for coping, advice for parents, and a checklist for determining if and when a child needs professional help with stress-related problems.
Topics	Games: Anger : Social skills in children Behavior modification

Title	**The Anger control game**
Subt	A program to develop anger control skills
Type	Reality
Auth	Berthold Berg
Date	c1988
Extent	1 gameboard + 1 manual + 5 game markers + chips + 1 die
Notes	Title from box.|Game is designed to teach anger control in aggressive children and adolescents
Topics	Games Anger Social skills in children Behavior modification

Title	**The Self-control game**
Subt	A program to teach attention and activity control skills
Type	Reality
Auth	Berthold Berg
Date	c1991
Extent	1 gameboard + 1 manual + 5 game markers + chips +1 die
Notes	Title from box.|Game is designed to teach self control in academic and social situations, concentrating on impulsivity, inattention, and hyperactivity
Topics	Games Self-control in children Behavior modification Attention deficit disorder Hyperactive children

Title	**The Social skills game**
SubTitle	A social skills training program
Type	Reality
Date	c1991
Notes	Title from box.|Game is designed to teach children attitudes and behaviors that enhance positive and rewarding interactions with their peers
Topics	Games Social skills in children Behavior modification

Title	**The Ungame**
Type	Reality
Date	c1989
Extent	1 board + 2 sets of cards + 6 markers + 1 die
Topics	Games Communication Social skills

Title	**The Ungame : kids version**
Type	Reality
Date	c1989
Extent	2 sets of cards + 1 instruction sheet
Topics	Games Communication Social skills in children

Title	**The Ungame : teen version**
Edition	Teen version
Type	Reality
Date	c1989
Topics	Games Communication Social skills in children

Audio/Visual

Title	**Circles**
Type	Visual Material
Auth	Marklyn P. Champagne, Leslie Walker-Hirsch
Date	c1983
Extent	2 videocassettes (VHS) + 2 sound cassettes + 2 boxes of slides + 1 packet of pictures + 1 book (72 p. : ill. ; 28 cm) + 1 floor graph
Topics	Social skills--Curricula Social interaction Assertiveness (Psychology) Self-esteem Friendship Handicapped

Title	**The American sign language dictionary on CD-ROM [computer file]**
Type	Software
Date	c1994
Extent	1 CD-ROM disk 1 manual + 1 troubleshooting guide
Notes	System requirements: Macintosh computer with 25 MHz 68030 processor or better, System 7, 4MB RAM (8MB or more recommended), 13" or large 256 color monitor, Macintosh-compatible CD-ROM drive with appropriate drivers. Keyboard and mouse. Interactive CD-ROM has video clips of signs, learning games, animations, and fingerspelling.
Topics	Sign language Dictionaries

Title	**The Skillstreaming video : how to teach students prosocial skills**
Subt	How to teach students prosocial skills
Type	videorecording
Auth	produced by Norman Baxley and Associates
Date	[198-?]
Extent	1 videocassette (VHS) (29 min.) : col. : 1/2 in
Topics	Social skills--Curricula
	Behavior modification

Title Index

--And as you can see-- a manual for teachers with a partially 19
A blind child in my classroom 19
A school handbook on classroom amplification equipment 22
A Special start 20
A special educator's perspective on interfacing special and 2
A teacher's guide to cooperative discipline 25
A teacher's guide to including students with 2
Accepting individual differences, AID
    Overview 2
    Hearing impairments 24
    Mental retardation and learning disabilities 2
    Motor impairments 2
    Visual impairments 20
Access for all [videorecording] 23
Action for inclusion 3
Andreas [videorecording] 14
Applause! 30
Assistive technology 14
Behavior management and community integration for 3
Beyond gentle teaching 30
Beyond separate education 3
Bright beginnings [videorecording] 21
Building effective transition strategies for individuals with 17
Celebrating diversity 3
Chances and choices 3
Changes in latitudes, changes in attitudes 3
Choosing options and accommodations for children (COACH) 4
Circles [videorecording] 36
Collaborative teaming for inclusion oriented schools 18
Collaborative teams for students with severe disabilities 25
Communicate 34
Communicate junior 34
Communication curriculum 4
Communication placement assessment manual 4
Communication-based intervention for problem 30
Community recreation and persons with disabilities 4
Community-based curriculum 5
Conflict resolution and mediation for peer helpers 30
Connecting students 5
Cooperative discipline 28
Cooperative learning 25
Cooperative learning and language arts 25
Cooperative learning and strategies for inclusion 26
Cooperative switch games 28
Creativity and collaborative learning 26
Cross-age/peer tutoring 5
Curriculum considerations in inclusive classrooms 5
Dream catchers 14
Educating all students in the mainstream of regular 5
Education 5

Effective schools for all 6
Effectively educating students with hearing impairments 22
Equal access for all 14
Exceptions 6
Facilitator's manual for collaborative consultation 26
Facing inclusion together through collaboration and co 28
Going to school with facilitated communication 15
Hello my friends [videorecording] 15
How to integrate autistic and other severely handicapped 6
How to teach self-management to people with severe disabilities 30
I make a difference! 6
Ideas for Inclusion 6
Implementing best practices for all students in their local 7
Inclusion : moving beyond our fears 7
Inclusion of children and youth with attention deficit 15
[Inclusive Education Articles] 7
Inclusive instructional design 17
Increasing the success of your ESL students through 26
Information packet level #3 7
Integrated programming 8
Integrated therapies 8
Integrating adolescents with severe handicaps into the 8
Integrating our preschoolers [videorecording] 21
Integrating the visually impaired student into physical 19
Integration can work [slide] 15
Integration strategies for students with handicaps 8
It's never too early, it's never too late a booklet about personal 8
Leadership skills for peer group facilitators 31
Learning functional academics in regular classes 15
Learning to care 31
Lessons for inclusion 8
Lessons for little ones 26
Let's learn about deafness 22
Mainstreaming in early childhood programs 9
Mainstreaming preschoolers
    Emotional disturbances 9
    Health impairments 10
    Hearing impairments 22
    Learning disabilities 9
    Mental retardation 10
    Orthopedic impairments 9
    Speech and language impairments 9
    Visual impairments 19
Mainstreaming the visually impaired child 20
Manager's guide for the tutor/notetaker 22
MAPS 18
Miller's MAP 16
Natural supports in inclusive schools 10
Numbered heads together [videorecording] 28
Our forgotten children 23
Pairs check: math manipulatives [videorecording] 29
Pairs check [videorecording] 29
Plain talk 16
Play for play's sake 27

- Play together. grow together 27
- Preparing to integrate students with behavioral disorders 10
- Program review of the Bethel Cooperative Summer Youth 27
- Regular lives [videorecording] 16
- Residential school or mainstreaming? 20
- Resources for teaching young children with special needs 10
- Restructuring for caring and effective education 11
- Right from the start 11
- Right from the start [videorecording] 16
- Self-monitoring procedures for high school students with 31
- Signing for kids 31
- Skillstreaming in early childhood 31
- Skillstreaming the adolescent 32
- Skillstreaming the elementary school child 32
- Social acceptance key to mainstreaming 32
- Social decision-making skills 32
- Social skill acquisition for children with visual impairments 21
- Social skill acquisition for children with visual impairments Pt. 2 21
- Strategies for making inclusion successful 11
- Support networks for inclusive schooling 11
- Supporting young adults who are deaf-blind in 17
- Supporting children in the classroom 11
- Take a deep breath 34
- Teacher's resource kit for hearing teachers of deaf adults 23
- Teaching social skills to youth 33
- The American sign language dictionary on CD-ROM 36
- The Anger control game 35
- The Comprehensive local school 11
- The Concept and the practice 16
- The cooperative classroom 27
- The inclusion papers 12
- The Least restrictive alternative 12
- The Nonrestrictive environment 12
- The prepare curriculum 33
- The Self-control game 35
  - The Skillstreaming video [videorecording] how to 37
- The Social skills game 35
- The tough kid book 33
- The Ungame 35
  - kids version 36
  - teen version 36
- The Vision video [videorecording] 21
- There's a hearing impaired child in my class 23
- There's a hearing impaired student in my classroom 23
- Think aloud grades 1-2 33
- Think aloud grades 3-4 33
- Think aloud grades 5-6 34
- Toward inclusive classrooms 12
- Trainer's guide for use with Mainstreaming in early 12
- Transition services for youths who are deaf-blind 17
- Traumatic brain injury in children and adolescents 12
- Treasures 13
- Unlocking doors to friendship 13
- Visually impaired students in the regular classroom 20

We can talk! [videorecording] 29
Welcoming Students who are Deaf-Blind into typical classrooms 18
What people need to believe and know to include students 13
What to look for when observing classroom lessons or 13
Winners all 13
With a little help from my friends 16
You and Me 18
You can't say you can't play 13

Appendix A

SPECIAL EDUCATION SERVICE AGENCY

LIBRARY POLICY

(Revised February 1995- Almost-Finalized Draft)

Purpose: The SESA library was established for the use of SESA staff and clients. Materials are loaned out so that clients can review them and decide if they are appropriate to order for themselves. This is also true of Assistive Technology materials, although in some cases, the loan will be for a longer period to allow extended use of the item.

Patron confidentiality: Patron confidentiality is protected by SESA library policy. We do not give out the names of patrons holding materials to anyone outside our agency.

American Printing House for the Blind (APH) materials may be checked out for as long as needed. However, they must be renewed twice a year (Beginning of summer and beginning of school year), so that we know they are being used. Consumable APH materials are available to those who qualify.

Materials signed out remain the responsibility of the person who signed them out. If the person who signed the materials out loans them to someone else, that person still remains responsible for the materials until they are returned. Materials signed out to a teacher for use at a school are the corporate responsibility of the school; should the teacher leave, the school is responsible. In this case, the teacher is acting as an agent for the school.

Patrons who check out Assistive Technology materials for more than 30 days will receive overdue notices, which indicate that the item must be renewed. As long as no one else needs the item, it may be renewed.

Reference materials may only be checked out for desk use by SESA staff.

Journals may not be removed from the library except for photocopying.

Overdues: If materials have not been renewed or returned after the 30 day loan period (with allowance made for mailing), materials reminder notices (overdues) are sent out. If you receive an overdue notice, but have already returned the materials, please notify the librarian. If materials were lost in the mail, it may be necessary to put a postal tracer on them. However, excessive overdues and/or lost materials may jeopardize your ability to borrow materials.

If you have renewed an item or have kept it past the 30 day loan period, you may receive a letter requesting that you return the item because another patron has requested it. If you receive such a letter, please return or mail that item within the next 3 days.

APH (American Printing House for the Blind) materials may be checked out for as long as they are needed. Materials reminders must still be answered so that we know they are being used.

Mailing: It is recommended that all materials be mailed insured, so that the sender can track the item if it is lost.

Copyright: Most materials are copyright protected and may not be reproduced without direct permission from the copyright holder.

Lost materials: Please notify the librarian if any materials have been lost. If materials were lost in the mail on being returned to SESA, it will be necessary for the sender to do a postal trace and to send a copy of the postal trace to the SESA librarian. Replacement costs will be charged for lost materials.

Damaged materials: If you find that materials have been damaged, please attach a note to them, notifying the library so that repairs can be done. Please described the problem as completely as possible. If materials were damaged from carelessness or misuse, you will be charged for the repair.

Outside Patrons:

(This does not apply to Assistive Technology or DOE materials, which are available to anyone who needs them, first come, first served.)

Priority for loan of SESA library materials goes to SESA staff and their caseload clients. Other people who wish to use the library must sign a memorandum of agreement on library use, just as all users do. After materials are selected for checkout, they will need to be cleared through the appropriate SESA staff member before they maybe actually checked out. Loan period is thirty days. Materials may be recalled at any time if a SESA staff person or caseload client needs them. The librarian will contact the outside patron, and materials must be returned within three days of the recall notice.

If anyone wishes to browse the collection or check materials out, they need to come in while the librarian is in (call first). Hours vary; call for an appointment. Materials may be dropped off anytime the agency is open.